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RICHARD H. EDMONDS, President.
THOMAS P. GRASTY, Vice-President.
FRANK GOULD, Secretary.
VICTOR H. POWER, Treasurer.

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RICHARD H. EDMONDS,
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THOMAS P. GRASTY,
General Staff Correspondent.

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THE ST. LOUIS EXPOSITION.

The Manufacturers' Record is represented at the exposition by Mr. Albert Phenix, its Southwestern representative, with office in the Missouri Trust Building.

AN INTERNATIONAL COTTON MEETING.

The suggestion of an international cotton meeting made in the Manufacturers' Record a couple of weeks ago has been heartily seconded by men in different parts of the country interested in the many phases of cotton. On another page of this week's issue of the Manufacturers' Record are published letters from representatives of the textile industry North and South, of the cotton trade and of cotton-growing, commending the suggestion and urging that prompt steps be taken to give it a practical outcome. The letters manifest a deep conviction as to the ability of this country to hold its pre-eminence in cotton-growing and to increase its importance as a cotton manufacturer, and as to the benefits to all parties concerned in a gathering of men thoroughly acquainted with cotton-manufacturing conditions in this country and abroad. The longer the suggestion is considered the more attractive does it appear.

In a letter to the Manufacturers' Record the Credit Clearing-House, Atlanta, Ga., says:

After careful investigation I find the Manufacturers' Record of great value. Your articles on the Southern situation, especially the textile industries, show careful and thorough investigation and ability to handle the subjects. I feel sure that it will be of great value to me in my line of work.

Advertisements of Southern localities offering special advantages for the location of manufacturing enterprises will be found on pages 72 and 73.

NEW ENGLAND'S TEXTILE SITUATION.

In its last week's issue the Manufacturers' Record quoted from the New Bedford (Mass.) Standard in illustration of the persistence of the spirit that has made New England what it is. On another page of this week's issue is reproduced from the Providence (R. I.) Board of Trade Journal, which is published by the Providence Chamber of Commerce, an editorial giving in detail facts showing the importance of cotton manufacturing in New England's industrial life, sketching the dangers to New England in a transfer of that manufacturing to the South, but emphasizing the means of New England's salvation.

The editorial points out the danger to New England in the plans "looking" to improvements in the mechanical treatment of raw cotton in the South and the establishment there of warehouses, whose receipts, used as gilt-edged collateral, means an immense increase in Southern banking business and a destruction of one great advantage now possessed by New England over Southern mills, the lower rate of interest, all of which will vastly strengthen the South's position in dominating the cotton world. It estimates that New England has about \$300,000,000 invested in cotton mills and as many millions more invested in textile machinery plants, in engine works and kindred enterprises absolutely dependent on the maintenance of the cotton industry. The removal of that industry to the South, it is pointed out, would be followed by a movement of other industries to the same quarter. Contending that the transfer of at least \$600,000,000 capital and hundreds of thousands of mechanics, operatives and day laborers to the South would mean New England's industrial decline, the Board of Trade Journal nevertheless says:

But New England can save itself. We are not accustomed to give up or sit supinely down and bemoan fate. We can bid the South godspeed in its development if we will take care of our own, for there is room enough for both sections without the one prospering on the ruins of the other. If our people, our bankers and every man interested in the prosperity of New England will awaken to our danger we can take on a new lease of life. We must be prepared to re-equip with modern machinery every mill that is not up to date; we must send to the scrapheap every engine or boiler or loom that is not producing the highest possible results; we must, if necessary, forego dividends for a while, or invest new capital in the re-equipment of our mills, and thus stop the Southward trend of cotton-manufacturing capital, and at the same time provide facilities for lessening the cost of getting cotton from the South to the mills. Is New England equal to the emergency, and will it save itself from such overwhelming loss as will come about if it should not prove equal to its danger and its opportunity? We have seen our iron industry, our rolling mills and many kindred things leave us, but they were of minor importance as compared with that industry on which our business life is staked.

Those sentences have the true ring in them—true to the ancient spirit of New England, that counted difficulties as incentives to greater efforts and which turned loss in one direction into opportunity for gain in another. The Manu-

facturers' Record does not believe that New England will permit the passing of such vast capital and so large numbers of workmen from New England, but that means will be devised to forestall such a danger. One of the great advantages of the South as a cotton manufacturer has been that practically no scrapheap had to be considered. Its new mills were equipped from the start with up-to-date machinery, and, of course, had that start in "competition" with New England.

SOUTH CAROLINA MINERALS.

At the American Mining Congress, to be held at Portland, Ore., in October, representatives of a number of Southern States will read papers telling of the mineral resources of their respective States. Commissioner E. J. Watson of the South Carolina department of agriculture, commerce and immigration has been quick to seize the opportunity for making known the resources of his State from a commercial standpoint, and has embodied in his report to the congress a paper by State Geologist Earle Sloan showing the location of the deposits of gold, copper, tin, iron, nickel, monozite, kaolin, fuller's earth, potter's clay, pyrites, granite, marble, limestone and marls adapted to the manufacture of Portland cement and fertilizers. With commendable enterprise and zeal the Columbia State is publishing in advance of the congress chapters from the report.

FOR ALABAMA'S ADVANCEMENT.

The Alabama Commercial and Industrial Association will hold its annual meeting at Anniston September 21 and 22. Among the subjects suggested for discussion are Alabama in relation to the Panama canal, bonded warehouses for cotton, immigration to Alabama, the cement industry of Alabama, climatology of Alabama, sugar-cane culture, practical industrial development and work of commercial clubs. This progressive body, composed of representatives of business organizations in the State, is a pioneer of its kind in the South, and its annual meetings have been productive of practical good for the State as a whole and of inspiration for the bodies represented in it. The topics suggested for this year's gathering indicate the trend of its energies.

SECRETARY WILSON'S WANDERINGS.

Just about a year ago Secretary James Wilson of the Department of Agriculture was the leading cotton bear of the country. That was by virtue of his interview of August 20, 1903, in which he displayed the utmost solicitude for the cotton manufacturers, and declared that their shortage of material was not due to shortage in the crop, but to a corner arranged by gamblers. Gen. M. C. Butler of South Carolina criticised that interview sharply, but not as sharply as it deserved, considering how misleading it would be to New England cotton manufacturers, who naturally

regarded it as an authoritative governmental dictum. He said in summary or Secretary Wilson's statements:

I should say that they amounted to an unwarranted and, it seems to me, rather wanton characterization of reputable business men doing business in a legitimate and honorable way, as common gamblers. That, and a number of bogeys, apparently the emanation of Secretary Wilson's rather vast lack of information on what he was talking about, seemed to me about all his pronunciamento comes to.

After reading General Butler's interview Secretary Wilson said, August 24, 1903:

I hope the business men of whom General Butler speaks will see to it that these prices continue until the cotton-grower sells the coming crop. If that should be done I will make a trip to South Carolina, find General Butler, if he should be there, take off my hat to him, and say to him that I regard him as a great public benefactor who has been able to see further ahead into the future than we poor fellows of the Department of Agriculture. But if, on the other hand, it should occur that the price of cotton dropped, when the farmer gets ready to market his new crop, down to eight or seven cents instead of 12 or 15 cents, then, of course, I shall still adhere to my opinion that the manipulation of the present cotton corner by the gamblers of whom I spoke is doing infinite mischief.

It is needless for the Manufacturers' Record to review the history of the past cotton year, utterly demolishing Secretary Wilson's theory of seven or eight-cent cotton. The effects of the operators following his lead are by this time fully felt by several thousand idle operatives in New England. It is interesting to note, however, that, unless in baffling disguise, Secretary Wilson has not made that trip to South Carolina to take off his hat to General Butler. On the contrary, he seems anxious just at present, when September cotton is bringing at least 11 cents, to get away as far as possible from South Carolina in one direction as he may without fleeing into Canada. Secretary Wilson has taken to the woods of Maine, and may be expected during the next few weeks of the campaign to drift through the New England textile centers for the purpose of demonstrating his good feeling for voters influenced largely by conditions of the cotton industry, and to divert their minds from the evil consequences, falling upon them specially, of his unwarranted intrusion a year ago into the cotton market.

MISSISSIPPI'S CORN CARNIVAL.

Mississippi is likely to give the country a pleasant surprise in December next. Leading business organizations and citizens of the State, together with the railroads and other agencies of progress, are actively at work in preparation for a Corn and Cotton Carnival to be held at Jackson, the capital, about December 10, its purpose being to demonstrate that Mississippi's agriculture is not dominated by cotton. Of the total value of its crops recorded in the last census, cotton, including its seed, contributed 63.6 per cent., it is true, but cereals contributed 22.8 per cent., forest products 3.6 per cent., miscellaneous

vegetables 3.3 per cent., hay and forage 1.7 per cent., sweet potatoes 1.7 per cent., and all other products 3.3 per cent. The total value of farm crops was \$84,883,770 divided as follows: Cotton and cottonseed \$54,032,341, corn \$18,873,934, forest products \$3,023,620, miscellaneous vegetables \$2,807,652, hay and forage \$1,459,879, sweet potatoes \$1,458,490, sugar-cane and products \$804,870, dried peas \$567,279, orchard fruits \$440,118, oats \$383,633, sorghum cane and syrup \$323,417, Irish potatoes \$245,777, small fruits \$141,000, peanuts \$89,350, grapes \$39,277, nursery products \$31,305, wheat \$30,743, rice \$28,564, flowers and plants \$26,907, onions \$24,058, nuts \$17,158, dry beans \$11,672, tobacco \$9225, broom corn \$9350, and miscellaneous, including barley, rye, Kaffir corn, cloverseed, grass seed, hops, tropical fruits, \$6542.

To the value of farm crops should be added those of animals sold and slaughtered on the farms \$7,026,882, of dairy products \$6,064,513, of poultry and eggs \$4,259,249, of wool and hair \$144,842, and of honey and wax \$113,021, a total of \$17,608,507; and a total of all farm products of \$102,492,283, an increase in 10 years of \$29,149,288, or 39.7 per cent.

While this increase was hardly commensurate with the average increase for the whole country or with Mississippi's possibilities, the figures for the several crops show what may be done in Mississippi. There are other facts which should encourage Mississippians to do. The average values per acre of various crops were as follows: Flowers and plants \$434, nursery products \$173, onions \$103, miscellaneous vegetables \$56, tobacco \$45, Irish potatoes \$39, sweet potatoes \$38, broom corn \$32, cotton \$16, hay and forage \$15, peanuts \$15, orchard fruits \$11, dry beans \$10, and cereals \$8.

These possibilities are to be emphasized by the exhibit at Jackson of what has already been done. It is well for the promoters of the carnival that they have placed such emphasis upon corn. They may find suggestion in special correspondence from St. Louis in the September issue of the Southern Farm Magazine describing the corn exhibit in the Palace of Agriculture at the World's Fair, in which there is a grouping of not only every variety of corn raised in this country, but of all the products and by-products of the grain, together with a vast amount of information about scientific breeding and improvement of the cereal. It says:

As for the layman who has thought of corn as something to feed stock and used by man in the shape of meal, or possibly whiskey, it will be amazing to discover that there are already some 60 commercial products and by-products of corn. There are several kinds of sugar and syrup, also of cellulose and glucose; there are cornmeal, samp, grits, hominy, viscose, pyroxylene and amyloid; for use in the arts there are celluloid, collodion, sizing, varnishes, films, filaments for incandescent lamps, artificial silk, guncotton, smokeless powder and fine charcoal; starch, grape-sugar, dextrin, oilcake, germ-oil meal, gluten meal, gum, corn rubber (used for buffers on railroad cars), malt, wines, whiskey, alcohol and fusel oil are likewise some of the products shown. Paper pulp is made from the stalks, and the pitch, in a highly compressed form, is used between armor-plates of a warship, where in case of a puncture beneath the water line it expands with such great and instant force as to stop the leakage. The more familiar husks are shown in the form of shuck mattresses and mats, and the stock feed, ensilage, etc., are also displayed. Cohs, cob ash and cob pipes are likewise among the articles shown, and the interesting fact is brought out that in Missouri, in one of whose towns a million of these "Missouri meerschaums" are made every year, a variety of corn has been bred up which has a cob of immense proportions, while the grain is nowise deficient.

Nowhere before has it been possible to

demonstrate the great interest which is now being taken in breeding corn, and it must be a source of general surprise to find so widespread attention given to the subject. "Pedigree" corn is to be found throughout the exhibit, and examples of the benefits of scientific culture are frequently met with. There are diagrams showing the chemical and mechanical composition of corn, and tables showing how the quantities of oil and protein may be increased by culture. Thus one demonstration shows that ordinary corn contains 10 per cent. of protein, while in pedigree corn the amount is 12.80 per cent. In ordinary corn there is 4.25 per cent. of oil, while in pedigree corn the amount is 5.60 per cent. Corn high in oil is valued by the glucose factory and commands a higher price, and corn high in oil and protein makes a balanced ration for growing cattle and one that will finish beef and pork more rapidly and with fewer bushels. It is also stated that pedigree corn will yield from 10 to 40 per cent. more than ordinary corn, as the per cent. of barren stalk is reduced to the minimum and the per cent. of ears is raised to the maximum.

The West is a leader in corn culture and in the utilization of corn products, but there is no reason why the South should hold a secondary place or why Mississippi should not be in the advance of Southern improvement in that respect. The corn carnivals of the West have been influential factors in the cultivation of a corn-growing sentiment. Mississippi's Corn Carnival should have like effect.

WHITES AS COTTON-GROWERS.

Enthusiasm of sudden conversion threatens to lead Mr. Theodore H. Price of New York as far astray as a cotton bull as he was in the opposite direction in his rampant bear days. In discussing the cotton outlook for this season he is quoted as follows:

There is no possible prospect that the coming crop will show an increase over that of 1890 commensurate with the increase in acreage. The reason for this is not hard to find. While the increase in acreage in the South for the past 14 years has been 63 per cent., the increase in the negro population in the South during the same period has only been 24 per cent., and in Texas, Oklahoma and Indian Territory the increase in acreage since 1890 is 124 per cent., while the increase in the negro population is only 45 per cent. Experience has proved that under the hot Southern suns the negro alone can be used for the cultivation of cotton, and the rapid industrial development of the South has drawn heavily upon the negro population for labor in its mines, lumber camps and railways.

However correct Mr. Price may be in his general deduction, and however influential at the present moment as affecting the cotton crop the lack of negro labor in the cotton fields may be, he is essentially mistaken in his statement that "experience has proved that under the hot Southern suns the negro alone can be used for the cultivation of cotton." Experience has proved exactly the contrary. For, not only is the importance of the negro as a cotton-grower steadily diminishing, but his supplanting by the whites in that domain is bringing about better results with the staple. From the earliest days the ability of the whites as cotton-growers was recognized. As far back as 1739 testimony was given in the English court that cotton could be raised in Georgia by white persons without the aid of negroes. It has been so raised throughout the South, and the number of whites in the cotton fields has steadily increased during the past 40 years, and is destined to become even greater, to the possible elimination of the negro at some time in the future. This is clearly indicated by some facts about Texas, Oklahoma and the Indian Territory. In 1900 in the Indian Territory, with a population of 302,680 whites and 36,853 negroes, 249,935 bales of cotton were ginned, nearly one-half, or 124,935 bales,

having been ginned in the Chickasaw Nation, where there were 124,306 whites and but 9066 negroes. In Oklahoma in the same year, with a population of 367,524 whites and 18,831 negroes, 106,707 bales were ginned. In Texas, where there were no negroes in 37 of its 243 counties, there were 286,654 farms of white farmers, with 17,145,584 acres of improved land producing to the value of \$215,434,934, and there were 65,472 farms of negro farmers, with 2,428,643 acres of improved land, producing to the value of \$24,367,070. Eighteen counties of the State ginned more than 50,000 bales of cotton each. In each one of them the whites were largely in the majority, their total excess over the negroes being 554,972 in a total of 829,934. In 1890 the whites constituted more than 82 per cent. of the population of these counties, and in 1900 they constituted more than 83 per cent., and these counties ginned in the latter year more than 41 per cent. of the total cotton crop of Texas. In the 10 years the white population of the State had increased 37 per cent., and in the 18 counties 41 per cent., while the negro population in the State had increased 27 per cent., and in the 18 counties 26 per cent. In the same period the cotton crop in these counties had increased from 481,975 bales of 500 pounds to 1,413,102 bales, or 193 per cent. In one county where the crop increased from 37,094 to 70,963 bales and the white population from 34,208 to 47,629, the negro population decreased from 2525 to 2456.

The process so marked in Texas is under way in other portions of the cotton belt, especially where Italians have shown a marked ability to surpass the negroes as cotton-growers. It is to the interest of everybody concerned with the cotton crop that this substitution of whites for negroes in the cotton field be hastened unless some means may be devised to restore to the negro the efficiency as a field laborer possessed by him before he was free. Such a restoration seems almost impossible, and it is well, therefore, that the whites are becoming of greater and greater importance as cotton-growers.

The Round-Lap Bale Again.

Mr. A. W. Walburn, at one time general manager of the American Cotton Co., and one of the largest stockholders, in a letter from New York under date of August 29 to the Manufacturers' Record, says:

"Both the friends and the enemies of the round-lap bale will all appreciate the space you have so kindly given it last week in the always interesting Manufacturers' Record. Your measurement of the management was very kind, considering what the cotton-ginning people who use the presses and make the bales (round as well as square) characterize as the most stupid and incapable that ever undertook the development of a new industry, and whose policy is also beyond comprehension. To a man up a tree it looks like the old compress people had acquired the round-lap bale corporation and was operating it so as to least disturb conditions that have been existing for the past 40 years, and are likely to be perpetuated indefinitely if our stockholders will cheerfully continue to take our losses and the present management in the same good humor and without regard to cost. We are very fortunate, however, in having the very best financial people here take charge of our affairs and still stay with us, although, as your article states, they have had at no time any stock interest in the company; but it appears the management they have selected has kept them

quite busy issuing bonds, advertising and otherwise hawking them about for sale on almost any terms and anywhere, but with no prospective buyers except the stockholders themselves, who require no statements to be shown and have no concern about either directors or management. What have you to suggest?"

The Manufacturers' Record has nothing to suggest unless it be that the stockholders take charge of their own property and run it and try to save something from the wreck. It is a little late, however, to save much from such a mismanaged enterprise, for while the managers of this company were wasting three years of time and sinking about \$3,500,000 of new money a square bale has come into existence which puts up at the gin a uniform square-lap bale of 500 pounds, and thus makes possible the compressing of cotton at the gin without any revolution in the style of bale or in the methods of handling. The lessee of the round-lap bale has only the American Cotton Co. as the buyer of his product, and unless that company is in financial shape at all times to buy his cotton he is at a serious disadvantage. The Whitman press, on the contrary, is open to the world to buy, and thus all danger of monopoly is avoided, and the ginner who puts up a Whitman bale has the world for a market just as he has for the present square bale. There is probably no man living who knows the merits of the round-lap bale quite so fully as Mr. John E. Searles, under whose management the company made phenomenal progress, and Mr. Searles, after studying the Whitman press at St. Louis in June last, hoping to find a flaw in it, but finding none, wired Mr. Wm. N. Cromwell, attorney for the American Cotton Co., as follows:

"Have examined Whitman cotton press. It is thoroughly practicable, and in strong hands will prove dangerous competition. American Company must control it if the company is to continue in business."

The correspondent of the Manufacturers' Record at St. Louis, who secured a copy of this telegram, in his letter commenting on it added:

"To his friends Mr. Searles unhesitatingly admitted that the Whitman bale does all he had hoped to do with the round bale, while it antagonizes nobody and meets every objection which he had to fight with the round bale in changing the form of the package. He practically admitted that it would be folly to try to push the round bale against this newer and better invention."

WHERE BUYER AND SELLER MEET

The Manufacturers' Record the Common Ground for Both.

The Manufacturers' Record is in receipt of a letter from Mr. Hugh Carpenter, Loudon, Tenn., calling attention to a partially-developed lead mine near that point, in which he says:

"The work of development has not gone far enough to make this mine a producer, but for the work done it has given the best results of any mine I ever saw."

Some of the people interested in it are anxious to secure additional capital or to sell a half interest.

By the same mail we are in receipt of a letter from the Virginia Oil, Coal & Mineral Co. of Norton, Va., in which they say:

"We would be pleased to have prices on a medium-sized lead and zinc smelting furnace, and we would also like to have bids on lead and zinc ore by carload lots."

Here is a case where a lead mine is seeking a buyer and buyers are seeking lead.

It is announced that Ohio parties will develop large deposits of marble seven miles south of Tullahoma, Tenn.

FOR AN INTERNATIONAL COTTON MEETING.

The proposed visit of a large number of British iron and steel manufacturers to the United States this fall, following the annual meeting held in this country a few years ago by the British Iron and Steel Institute, led to the suggestion in a recent issue of the Manufacturers' Record of an international meeting in this country of men interested in the manufacture of cotton. The acquaintance made through the gathering of the iron men proved mutually advantageous to manufacturers in this country and in Europe, and it is believed that similar advantage for the cotton-mill men would flow from an interchange of opinions at some point in the South where a view both of cotton-growing and cotton-manufacturing might be easily enjoyed. Foreign spinners are dependent to a large extent upon the South for their raw material, and yet probably the majority of them have never made a personal study of this section, and know comparatively little about its advantages for cotton-growing as compared with the rest of the world, and still less, by personal investigation, of the development which has already taken place in cotton-manufacturing in the South. There is at this time a tendency to exaggerate questions of rivalry in the textile industry between Great Britain and this country, as well as between different parts of the United States. Personal acquaintance of alleged rivals and personal observation of Southern facts may, it is believed, be depended upon to minimize questions of rivalry, to bring about an understanding that will save much waste of attempted competition and be productive of much benefit to the whole cotton-manufacturing world. Such seems to be the impression of a number of men in the North and South to whom the Manufacturers' Record submitted the suggestion, and who write as follows:

S. F. B. Morse, Southern Cotton Corporation, New York: Your favor of August 24 suggesting an international meeting of cotton spinners to be held at some point in the South the coming fall is received. I heartily commend the suggestion and your activity in the direction indicated. There is not the least doubt but that such a meeting would bring about material results most beneficial to all concerned in the production and consumption of cotton. It is to be sincerely hoped that your efforts will prove fruitful in every respect.

D. A. Tompkins, president and engineer of the D. A. Tompkins Co., Charlotte, N. C.: I think the idea of having the English spinners to visit this country and hold a meeting in the South would be a very excellent one. There will be a good chance to see what New Englanders think of it at the meeting of the New England Cotton Manufacturers' Association in the White mountains in the latter part of September.

S. L. Patterson, commissioner of agriculture and immigration, North Carolina department of agriculture, Raleigh, N. C.: While I am not at all connected with the manufacturing of cotton, I feel a keen interest in the progress and prosperity of the "spinning industry" of the South, and in every movement tending to strengthen and develop it. It seems to me that such a meeting as you propose can be only of advantage to the Southern cotton spinners. I believe in the South for both raising and manufacturing cotton, and we need feel no misgivings in making known our advantages to the rest of the world.

Leroy Springs, president of the Lancaster Cotton Mills, Lancaster, S. C.: I would think that your suggestion as to getting

New England manufacturers to hold their meetings in the South is a good one, and think it would be to great advantage to all parties. I would suggest Columbia, Augusta, Greenville, Spartanburg or Charlotte, as there is cotton mills at all these points, and also cotton fields, which would prove of interest to all these parties.

H. P. Meikelham, agent, Massachusetts Mills in Georgia, Lindale, Ga.: I believe that the more often people engaged in the same manufacturing can be thrown together the broader-minded they become and the more useful they become in their lines through the exchange of ideas. This idea of everybody living to themselves and depending upon themselves I think has passed, and the more we can see of one another's plants and methods of doing business, the more interchange of ideas, the more successful we will become, and our business and trade will be materially benefited. I am heartily in accord with your ideas.

Andrew M. Soule, director and professor of agriculture, agricultural experiment station, University of Tennessee, Knoxville: The idea of such a gathering meets with my hearty approval. It seems to me that your editorial is along conservative lines, and points the way to a better general understanding of the cotton situation by the manufacturers of both the United States and Great Britain. A fraternal meeting of this character is bound to be productive of great good, and it is of the greatest importance to the United States, and to the South in particular, that the British manufacturers fully understand what is being done in cotton production and cotton manufacturing in the United States. The British manufacturers are now seeking ways and means to stimulate the growth of cotton in various countries, in the hope that they may obtain the staple at a lower cost and from other countries than the United States. The South is ideally adapted to the production of cotton, quite as much so as the whole United States is to the production of corn. It is recognized throughout the world that the United States leads the world in the production of corn; in other words, that our climate and soil are ideally adapted to its production. While cotton is not a native American plant, it may be regarded now as practically indigenous, and while wonderful development has been made in the past few years in its cultivation and manufacture, we are, in my opinion, merely on the threshold of its future possibilities. Therefore, anything that can be done to arouse public interest in cotton-growing and cotton manufacture, and in the exploitation and development of this great staple crop of the United States—the greatest money-making crop in the world—should be done. The writer is not a pessimist, and does not feel that the center of cotton production will be lost to the United States, but the present situation is a matter worthy of the most serious consideration. The time has come when every effort must be put forth to stimulate cotton production. The farmers of the South have an opportunity within their grasp that means everything to them. The British millowners have but a vague idea of the great territory available for cotton production in the South, and a trip through the Southern cotton belt and a visit to typical American manufacturing plants would impress them wonderfully. It would show them as nothing else can the latent power of the South for the production of a cotton supply in the future commensurate with the needs of the civilized world.

John W. Tullis, president Eufaula Cotton Mills, Eufaula, Ala.: I fully approve of the idea of getting a number of English spinners to visit this country if possible. It would, of course, give them the advantage in visiting our mills and seeing what we are doing, and we get no corresponding benefit from a visit to their establishments, but I am one of those who don't think that anything is lost in such commingling, but that almost always both sides are benefited. I hope you may succeed in getting such visitors, and that we all may be benefited thereby. I would suggest that Augusta, Ga., would be a suitable place for the meeting in the South.

Arthur H. Lowe, president Parkhill Manufacturing Co., Fitchburg, Mass.: I believe great good would result from the international meeting of the cotton manufacturers that you suggest. I believe most American cotton manufacturers would heartily welcome these foreign visitors, and from the acquaintance and interchange of ideas a lasting benefit would be done to the cotton industry. I hope the idea will be successfully carried out.

J. M. Odell, president Odell Manufacturing Co., Concord, N. C.: I heartily approve of your suggestion in regard to having a meeting of the manufacturers of the world in the Southern States, and hope that the idea will be carried out with a very successful meeting.

W. J. McCain, Livingston, Ala.: I feel sure that such a meeting would result in much benefit both to the cotton spinners and to the cotton-growing section of this country. As the capacity of the South to produce more cotton than it has for the past three or four years was seriously questioned at home and abroad last season, it would be advisable for the foreign spinners especially to make a carefully-mapped-out trip through the cotton-growing States and see for themselves the millions of acres now lying idle, or devoted to minor crops, that would be devoted to growing cotton if the price should remain specially remunerative for four or five years continuously. Heretofore good prices have so speedily been followed by years of low prices that the cotton-grower has come to think it unwise to make much additional effort to produce more cotton because of higher prices at the close of the previous year. If the world would take all the cotton offered for a period of several years at or around 10 cents to the producer, which is fairly remunerative compared with other crops and profits derived

from money invested in other lines of business, the South would probably pass the 15,000,000-bale mark by the end of the fifth year. At prices lower than this there is no special stimulus to increase the acreage or volume of the crop. However, there is no limit to the capacity of the South to grow cotton, and we have no cause to fear that any country can ever be a serious competitor. It is well that the foreign spinner should know this.

George R. Brown, secretary Little Rock Board of Trade, Little Rock, Ark.: We trust that you will go ahead in this matter. You will find the business element of the South enthusiastic in favor of such a meeting. It will enable not only the cotton merchant of the South, but many of the larger cotton producers to form the personal acquaintance of that class of manufacturers who use the great product of the South. If you succeed in having this convention called, I hope it will be at some central point, in order that the people interested in cotton in the West may have an opportunity of attending. Nothing but the scarcity of labor prevents a rapidly-increasing cotton acreage in this section of the country. This scarcity of labor, I might add, is due to the rapid development of the natural resources, especially in this State.

J. J. White, president McComb City Cotton Mill, McComb City, Miss.: I think an international cotton meeting of the cotton spinners at some point in the South where the European spinners can see how and where the best cotton is grown, giving American spinners the opportunity of coming into close contact with the European spinners, would be a good thing and prove advantageous to all. I do not see how such a meeting could result in anything but good to the cotton-manufacturing industries.

J. G. Lee, commissioner Louisiana State board of agriculture and immigration, Baton Rouge, La.: I heartily approve of the idea. You can count on me to aid and assist you in this movement to the fullest extent of my ability.

R. T. Fewell, president Arcade Cotton Mills, Rock Hill, S. C.: I think it would be of great benefit to have an international cotton manufacturers' meeting, as this is an age of progressiveness. I think every manufacturer in Great Britain, New England and the South could be benefited, for there is always something new to learn in manufacturing. I would be glad to see such a meeting held in the South.

MISSISSIPPI'S CORN AND COTTON.

[Special Correspondence Manufacturers' Record.]

Jackson, Miss., August 23.

The proposition to hold a Corn and Cotton Carnival in Jackson, the capital of Mississippi, has met the approval and endorsement of the press and people throughout the State; in fact, the suggestion seems to have struck a popular chord, and the enterprise at this writing promises to be of much greater scope and magnitude than the original promoters hoped for.

The fact is that Mississippians are becoming active and interested in the development of the State's resources and stand ready to give their money and time to any enterprise looking to any advancement in this direction. Mississippi is a rich State. It has always been rich in soil and favored in climate, but its fortunes were impaired by the Civil War and following conditions until its landowners, many of whom were born and reared wealthy, were forced between the plow handles and behind a hoe to produce the necessities of life. But today Mississippi is also rich in money, and its people propose to use their accumu-

lated wealth through their raw material to produce more.

Mississippians realize one thing, however, and frankly admit it, that they are deficient, as a rule, in manufacturing experience and short on both field and industrial labor. They realize also that they grow cotton at the expense of diversified agriculture to an extent that is not to the best general interest to the State, although with a cotton yield of one to two bales per acre and fair prices that crop is profitable. In the purely agricultural district cotton-growing is engaged in so exclusively that in some instances living is made too expensive for ordinary farmers by reason of the lack of the cultivation of fruits, vegetables, hay and other food products for both the kitchen and the barn. Before the war the farm laborer of the State was best adapted to and more successful in cotton-growing than anything else, and after the war, cotton being the safest money crop, and the Mississippi farmer needing money to rehabilitate his place, cotton has

always been the chief agricultural product of the State.

I have discussed these conditions freely with Mississippians in every part of the State, and there is little diversity of opinion as to their correctness. All of this does not mean that Mississippians are deficient in enterprise or progressiveness, for they are not, but conditions have for many years held them in certain fixed channels, of course, with some exceptions, but these conditions are now changed, and Mississippi proposes to change with them.

The facts above stated for some time past have suggested to the people of the State that it is to their interest and to the general welfare of the Commonwealth to invite a desirable class of truck, fruit, grain and vegetable growers, dairymen and people skilled in manufacturing, including stockholders, managers, mechanics and laborers, and it is the idea of the Mississippi Corn and Cotton Carnival to give the broadest possible invitation to such people from all parts of the country to come to Mississippi and share in its wealth and prosperity and to make such a display of its products as will enable them to select the line of industry that their taste and training prefer, either agricultural or industrial.

While the enterprise is to be called a Corn and Cotton Carnival, it will be made perhaps the best all-round display of agricultural products ever collected in this section of the South, and will include fruits, vegetables, grain, alfalfa, grasses, and, in fact, everything grown to any considerable extent in the State. There will also be an extensive display of the hard-woods and timber of the State, both in log and manufactured form. In short, it is proposed to make a magnificent exhibit of every feature of Mississippi's resources.

The plan is to organize a Corn and Cotton Carnival corporation and issue stock in shares of \$100 each and offer the stock to landowners and business men all over the State who are interested in the movement. Jackson proposes to raise a guarantee fund; in fact, it is practically already raised sufficient to launch the carnival and if necessary carry it to successful conclusion, but as it is to be whole State in its character, and if possible every county represented, an invitation will be extended to those who may be interested all over Mississippi to participate and to take stock if they desire. Before this is in print a carnival association will be organized of the leading business men in the State, who will be amply able in money and ability to carry out any plan they may undertake.

The carnival will be held in the spacious chambers of the old Mississippi Capitol, which has recently been vacated for the occupancy of the State's magnificent \$1,250,000 official home. No more attractive or picturesque place could be found in the South for a week's holiday and a display of Mississippi's resources than this historical building. Of the truest type of the style of old colonial public structures, it is guarded and shaded by giant oaks, those great kings of the forest almost reverenced by the red man, and under whose friendly shadows much of the South's history has been made; as, for instance, the one that protected John Wesley in Georgia when he preached his first sermon in America, the one on the campus of the University of Georgia under which Bob Toombs made his famous speech to his classmates when he had been refused the privilege of speaking in the chapel of his Alma Mater for an infraction of the rules of the institution, the one that the draft of one of the most important constitutions in history was hid, and many others could be mentioned. The Northern visitor who comes to Jackson, Miss., the second week in December and steps from the mellow

Southern sunshine of that delightful season through the groves of these forest kings, that spread their protecting boughs over the great pile in whose halls Jefferson Davis made his last speech, Lamar and George's voices have run, and in which the most important constitutional convention in the South was held, and witness in the gracefully-curved lobbies and alcove

chambers therein, with the hundreds of unefaced inscriptions on the walls that tell of great political battles and great historical events, will undoubtedly feel that both for the sentiment and the business that surrounds him his trip will be of more interest and better repaid than one to any past or present World's Fair.

LEE J. LANGLEY.

and again in different cities throughout the country. For instance, in Denver one of the most perfect cable systems in the country was in operation only five years, when it was supplanted by electricity. The streets having been improved, the bicycle put this company out of business, forcing it into bankruptcy, the investors losing millions of dollars. I now am informed that this city has recently placed orders for automobile omnibuses, to be operated on its perfect streets. Here again we see a new and very serious difficulty which any system confined to tracks may have to contend against in order to maintain its supremacy, or even its existence, in the shape of competition with beautiful rubber-tired vehicles running on asphalt pavements and delivering and taking up passengers at the sidewalk.

"There are few fields of human activity in which such a saturnalia of reckless expenditure has been indulged in as in street railways.

"In New York we are on the eve of return to first principles in operations of this kind, as in Los Angeles and Denver, by virtue of the fact that the way for such a return has been literally paved by the taxpayers through the construction of nearly 1000 miles of asphalt streets. Indeed, I am inclined to believe that it is only by the use of the public highways, the roads and the streets, with no complicated short-lived mechanism, that continuous profits can be earned by those who go into the business of urban and interurban transportation. A sound and enduring business proposition of this kind would seem to be presented only where the roads and streets are maintained at public expense in a condition suitable for vehicles propelled by what is now, and must, with but inexpensive modifications for at least a generation, be the cheapest, best and most reliable motive power, viz., electricity produced and distributed by the latest inventions and devices.

"What I am trying to make clear is illustrated in the history of the above method of transportation in the larger cities of Europe. In London, for instance, British conservatism has proven highly beneficial to the owners of transportation systems. Four hundred millions of passengers—more than the surface cars of New York haul—are annually transported in omnibuses drawn by horses, which are rapidly being converted into electric automobiles. There have been no erratic attempts at innovation in that great center of population, where the 'powers that be,' with due regard for the rights and comfort of the public, have kept the streets in their pristine, unmutilated smoothness, free for every kind of trackless vehicle. They seem never to have forgotten that the streets were originally dedicated for vehicles of this kind. On the other hand, in New York we have destroyed the natural uses of our streets by all sorts of mutilations, erroneously supposed to fill public needs, and must soon or late see all this work undone in order to fill the real needs of our people. Therefore, as I said before, I feel that it is a thoroughly safe prediction to say that within a few years every car track and conduit will be removed from the streets of the metropolis, and that these will be restored to their natural and original uses.

"This conclusion is strengthened by the experience of other foreign capitals. The authorities of all the great cities of Continental Europe have, with consistent reluctance, refused to allow any but the slightest inroads upon the free-for-all and time-honored uses of their public highways, recognizing as a sort of sacred duty the safeguarding of what had been set apart solely for the public's convenience. In all these centers of population, when the necessity arose for greater carrying

DOES THE AUTO-BUS MEAN THE ABOLITION OF THE STREET CAR?

[Editorial Correspondence Manufacturers' Record.]

Atlanta, Ga., August 30.

"In the course of a few years there will not be a street-car track in all New York." Such was the prophecy of a mechanical expert who has built and rebuilt more street railways than any man in this country. I was talking with this man on the train about the ever-increasing perplexities of urban transportation in Manhattan, as discussed by Mr. Grasty in last week's Manufacturers' Record. The foregoing almost startling prediction was followed by this statement of facts (almost equally astonishing to those who have not kept up with the growth of the automobile interests), which tends to prove its probability: "Five years ago there were no automobiles. During the last 12 months our automobile output exceeded in value all the locomotives built in America by \$20,000,000, and the industry is scarcely out of its infancy. The trolley car and draft horse will go together; there is no room in the crowded streets of our largest cities for either."

As this man is perhaps entitled to be considered a mechanical genius in so far as a practical, hard-headed man of affairs can be so regarded, and as he has studied urban transportation more extensively than anyone I have for a long time come in contact with, and is, moreover, thoroughly conversant with the systems and methods in vogue, not only in America, but in every European capital, I naturally encouraged conversation with him on this most interesting subject. "Owing," said this expert, "to the cost of changes in methods and systems which inventive ingenuity has, ever since the passing of the horse-car, been constantly forcing on the owners of street railways, it is doubtful whether as many as 5 per cent. of these have been operated at a bona fide profit."

"In other words," he went on to explain, "I mean that if the cost of all the changes and new installations which have from time to time become necessary are added to losses due to wear and tear and the abandonment of what periodically becomes obsolete, both in plant and equipment, the figures would show, at least for a large majority of American street railways, a loss instead of a gain during any 10 years of recent operation. This, of course, does not mean that dividends have not been declared and paid, but it does mean that such dividends can be shown, by going to the very root of prevailing methods of bookkeeping, and by probing to the bottom modern refinancing practices, to have been for the most part unearned, and so in the final analysis it will be found that most of the dividends that have been paid on street-railway properties have come out of capital, and not out of net earnings."

"The truth of the matter," he then went on to remark, "is that no system in any branch of industry or enterprise should be considered absolutely sound unless it be founded on what can be proven to be at least temporarily permanent. Take, for instance, the cable as a means of propulsion. Its life was but a breath; its instal-

lation and subsequent abolition—its birth, death and funeral—cost the owners of many street railways as much as could be legitimately earned in 10 years of operation. Its replacement by electricity, involving changes in power plants, conduits and general equipment, cost in most cases enough to eat up the earnings of another decade, even with skillful management and growing traffic.

"To illustrate, I will give you the history of street-railway changes in a single Western city: I remember in 1886, while traveling through California, they were equipping what was called the Picot Street Line in Los Angeles with the Daft system of electricity, using a little four-wheeled trolley running on two overhead wires (a rope extending behind pulling the trolley along as it furnished power). This was a complete failure as applied to street-railway traction, and was quickly abandoned. Subsequently a very fine system of cable propulsion for street cars was installed throughout the main avenues of the city and to the Downey Avenue Heights, and what was called Boyle Heights. This system was the most elaborate I had ever seen in the line of cable propulsion. Boston and Chicago capitalists put \$4,000,000 into this proposition, finishing the line and opening it in the early part of 1889. I visited the city again in 1892, only to find the entire cable system absolutely abandoned, the conduits ripped up, the power station dismantled, and a complete electric system installed in the city of Los Angeles and its suburbs. They fitted out a central station with the most improved machinery that could be purchased at that time, and with cars and electrical equipment of every description brought right down to date.

"In 1893 or the early part of 1894 this entire property went into the hands of a receiver, all of the original investors being entirely wiped out. The whole line eventually had to be reconstructed, requiring a new power-house and new machinery; in fact, every detail had to be worked over. It is but 10 years since this occurred. During that time the streets of Los Angeles have been entirely paved with asphalt or macadam; in fact, its streets are now among the finest in the world. Thus the way has been opened for the simplest, easiest, least expensive system of urban transportation, and today automobile omnibuses are being installed for traffic purposes in Los Angeles, which foreshadows another complete revolution in the transportation of passengers in that locality—a revolution which in all probability will be repeated in other cities in the same manner. As I proceeded north through California in 1887 I came to the city of San Jose. I there found a complete system of underground electric railway called the Fischer system. It was built with the greatest care, and to my mind seemed one of the most perfect mechanical successes. In six months this system was obsolete and the tracks out of the streets.

"This process has been repeated time

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capacity than the streets could accommodate with trackless vehicles, the underground system alone was permitted to supply the deficiency. And so it seems we are not very far from the point where public sentiment will demand the same

R. H. E.

Southern Building and Industrial Activity—III.

The exposition of progress in Southern cities begun in the Manufacturers' Record of August 18 through letters from business organizations and continued in this week's issue is one of the most interesting commentaries upon Southern development that has appeared in recent years. The letters which have been published and which are still being received have come from typical commercial clubs, boards of trade, business leagues and other organizations in all the Southern States, and reflect the spirit that is dominating so many Southern communities, and which, in these days of prosperity following fair prices for cotton, is able to manifest itself in municipal and individual improvements and in an expansion of industrial enterprises. Additional letters follow:

Fayetteville a Manufacturer.

[Special Cor. Manufacturers' Record.]
Chamber of Commerce,

Fayetteville, N. C., August 25.

The large dam of the Electric Power Co. is about completed. It is 1500 feet long and creates a pond of 12 miles. Within 90 days this wonderful power should be delivered in Fayetteville. The mills here are already equipped with the necessary machinery to utilize this power on its arrival. Fayetteville is so situated as to offer a splendid opportunity for a profitable investment in a street-railway and trolley system to connect this city with the Hope Mill villages seven miles away.

Fayetteville, as is well known, is at the head of navigation on the Cape Fear river. (This river has an appropriation from the government of \$1,300,000 for its canalization up to this point.) The Atlantic Coast Line system passes Fayetteville with its through Florida and West India trains, and has branch roads in five different directions out of Fayetteville. Our water connections compel a low freight rate, and this and other advantages is causing a steady growth and improvement to our city.

A trolley line to connect Fayetteville with the mill villages about us could be built very cheaply, as the grading is very little and the electric power can be had of the Cape Fear Power Co. at a low figure. There would be no trouble in obtaining a liberal franchise from the city. In addition to the city passenger and freight traffic, the trolley could be made to pass the dozen mills above mentioned, and also the plants of the following industries: Norfolk Lumber Co., Southern Cotton Oil Co., E. A. Poe's brickyard, Fayetteville Woodenware Co., Fayetteville Ice Factory, Southern Pine Product Co. and many other important points, and it would take in also the suburban residential Haymount a mile west of the city. In addition to the large and profitable passenger traffic a trolley line would soon develop, as it would give close connection with the river boats, their low freight rates would draw two-thirds of the freight for the mills and other industries mentioned above.

Not less than 15,000 bales of cotton are consumed by these mills. The handling of this large number of bales of cotton and the output from them produce an immense freight. Then there are about 20 stores connected with the mill villages outside of the city. These produce large freights also.

The population of Fayetteville united to

rational methods which, as has been so abundantly proven by European experience, are most largely conducive to the convenience, comfort and welfare of those who come and go on our crowded island."

R. H. E.

that of the mill villages and to those near by the proposed line would possibly amount to 15,000 to 20,000, with easy distance to patronize the system. Besides, a trolley line always builds up the country along which it passes.

One of our largest mill operators writes your correspondent today: "In reference to this proposed trolley line between Fayetteville and Hope Mills, we would like very much to see it put in operation to insure better facilities for handling freights to the town, as well as the mills, and we believe it would prove a handsome investment to the promoters."

Within a few days past it has been made known that Fayetteville, N. C., is to add another large cotton mill to those already in successful operation here. The Fayetteville Observer of this week's issue says: "We learn that Mr. Coleman has made all arrangements for the erection of his factory at an early date and has contracted for 800 electric horse-power from the Cape Fear Power Co." It has been known for some time that parties have had an option on certain properties here with a view to the erection of a large cotton mill. Only this week, however, has the trade been consummated and the intention fully disclosed.

The prediction, made by this writer through this paper some years back, that Fayetteville would in the near future become a manufacturing center seems to be nearly realized. The following mills are in successful operation here now: The Holt-Williamson Mill, the Lakeview Manufacturing Co., the Holt-Morgan Mills, the Tolar-Hart-Holt Mills, the Ashley-Bailey Silk Mill No. 1, the Ashley-Bailey Silk Mill No. 2, the Cumberland Mills, Hope Mills No. 1, Hope Mills No. 2, Hope Mills No. 3, Hope Mills No. 4, and now the Coleman Mill, which is to be a large, up-to-date cotton mill run by electricity.

The early coming to this city of 4000 electric horse-power from the Cape Fear Power Co.'s plant at Buckhorn, on the upper Cape Fear river, is obliged to bring a great many other factories to Fayetteville. The advantage this power will give to us, added to our other advantages, such as cheap freight rates, healthfulness, abundant and cheap labor, fine climate, pure water, etc., will attract attention to Fayetteville, N. C., all over the United States, and especially in the New England strike centers.

The relative cost of operating mills by steam and by electricity is vastly in favor of electricity. Mr. John R. London, president of the Victoria Cotton Mills, gives the following figures as his experience in operating his mill under both systems: Cost of operating the plant one month by steam, \$961; by electricity, \$421.98; one year by steam, \$11,540; by electricity, \$5063.

F. R. ROSE, Secretary.

The City on the Dan.

[Special Cor. Manufacturers' Record.]
The Commercial Association,

Danville, Va., August 24.

Since the recent organization of the Danville Commercial Association the City on the Dan has taken on new life and energy. The business men are a unit as to the needs and necessities of the hour in all the channels of business enterprise. Leaflets regarding the city's advantages, possibilities and wonderful resources are

being scattered all over the country through the efforts of the Commercial Association. Plans for a filtering plant and pumping station to be placed on the Dan river at a cost of about \$100,000 are now being inaugurated. Bids for construction of same are now being asked.

The Danville Railway & Electric Co., covering an area of seven miles, has bought water-power on the Sandy river about six miles northwest of the city. For the past three weeks a corps of engineers and surveyors have been making examinations and surveys and levels of the water-power with a view to perfecting plans and specifications for its development. The property shows 72 feet of fall. This power, when developed, will furnish 1500 to 2000 horse-power, and will be a great inducement for the establishment of the smaller industries in the city at a cheaper rate than steam-power.

The city has recently voted \$30,000 for another iron wagon bridge to cross the Dan, giving to the people another egress and ingress to the city. This has been especially hailed with great enthusiasm by the farmers nearby.

The following recently-compiled figures show Danville to be the largest loose-leaf and bright-tobacco market in the world. The amount of tobacco handled in Danville for the past five years is as follows:

Year.	Pounds.	Price.
1899.....	49,939,542	\$3,252,935 26
1900.....	50,220,374	3,422,101 49
1901.....	37,124,068	2,740,884 62
1902.....	33,685,062	3,454,150 34
1903.....	46,710,547	4,095,316 12

The Dan River Cotton Mills, now being erected, will be one of the most complete mills of its kind in the Southern States, and will cost, when completed, \$2,500,000, employing 1800 hands and consuming 30,000 bales of cotton per annum in the manufacture of all kinds of cotton goods.

The Boatwright Bros. Printing Co. has recently moved into its new plant, costing \$15,000, employing 20 hands, for the printing of blank books, stationery and catalogues. It is one of the new modern enterprises of Danville, and is one of the best equipped and thorough printing establishments to be found in the South.

The Danville branch of the American Tobacco Co. is manufacturing yearly about 150,000,000 little cigars. The capital invested in this enterprise is \$200,000, employing 850 hands.

The Virginia Hardware Co. has recently added a harness department to its business at a cost of \$10,000, employing 16 hands. This plant will manufacture all kinds of harness, and is now doing a business amounting to \$50,000 per year.

The White Polish Co., for the manufacture and sale of a new polish for cleaning furniture, has just been organized, and will manufacture from 1500 to 2000 gallons daily.

The Southern Railway has recently built a large and commodious freight depot 350 feet long by 70 feet wide, having a platform in the rear of 150 feet, close to the railroad track, for the easy and convenient handling of freight. In receiving freight there will be plenty of room to divide off in separate sections the listed freight, so the merchants of Danville will find it to their convenience to receive their freight with little trouble and friction. Splendid arrangements have been made for fire protection.

The Manufacturers' Record, through its ably-conducted correspondence and its wide circulation throughout the entire country, and by its progressive policy, is making known and building up the South. Danville is reaping good fruits from this able magazine. Inquiries throughout Indiana, Illinois, Wisconsin, Nebraska, Kansas and Colorado are being received by the association. Recently the association has compiled in statistical form information

regarding Danville, which is embraced in a small leaflet of 12 pages. An edition of 10,000 of these leaflets is being distributed throughout the East and West.

ALEXANDER HELPER, Secretary.

Branching Out on New Lines.

[Special Cor. Manufacturers' Record.]
Commercial and Industrial Association,

Montgomery, Ala., August 24.

We have, we consider, one of the solidest cities in the South, and our development has been limited to no single direction. It may be of interest to you to note that we have organized several new permanent committees this year, whose lines of work will be readily understood by their titles, as follows: Improved building methods, forestry and lumber industry, modern office building, grain elevator, and non-sectarian college. Along these new lines we hope to show a year hence some specific growth and some practical results of the year's work.

L. L. GILBERT, Secretary.

No Longer Dependent on Cotton.

[Special Cor. Manufacturers' Record.]
Commercial Club,

Brenham, Texas, August 24.

In addition to the many established industries in Brenham, including the \$175,000 cotton mill, two cotton compresses, an oil mill, electric-light plant, ice factory, furniture factory, galvanized-iron cistern factory, a packery, soap factory, plow and cultivator factory, besides many small manufacturing industries, this section is promised an era of prosperity this fall far exceeding any of the previous four or five years.

The cotton crop is being harvested, which gives employment to the hundreds of colored laborers and pours a stream of gold into this section that stimulates every industry, and the carpenters, brick masons and lumber dealers are all busy.

Quite a number of handsome residences are going up here, and Mr. Wm. Seidell is building a large brick store on the corner of Market and Alamo avenue.

The Hoffman block is undergoing repairs, one end of the block being torn out and built up again.

Floods, boll-weevils and bad-crop years generally have given this immediate section a temporary setback, but it has educated our farmers in diversification, and now they no longer depend on the cotton crop, but are turning their attention to truck-growing, 150 cars of Irish potatoes having been shipped from here this spring, when they were worth \$1 to \$3 per bushel, and this, together with other branches of the truck industry, has made the farmers independent of cotton, and when a good cotton crop is made they will have a tremendous surplus for luxuries, as they will have this year.

Brenham is well located for industrial enterprises, and stands ready to encourage them in every way.

Brenham is a city of about 6000 population at the intersection of the Houston & Texas Central Railway and the Gulf, Colorado & Santa Fe, 90 miles from Austin, 72 miles from Houston and 126 miles north of Galveston; has splendid school advantages, a number of colleges, churches of all denominations, and extends a cordial welcome to the homeseeker or any kind of manufacturing industry.

Encouraging New Industries.

[Special Cor. Manufacturers' Record.]
Commercial Club,

Moberly, Mo., August 23.

In the last two years we have had built in our city a large grain elevator at a cost of \$75,000 and a Carnegie Library at \$25,000. A postoffice site has been bought by the government on which it will erect a building to cost \$40,000.

The Wabash Railway pays out at this point to its employes about \$75,000 per

month, and manufacturing interests pay out about \$25,000 per month. We have two brick plants with a capacity of 75,000 per day—one for vitrified paving brick and the other for dry-press building brick; both have Wabash switches direct to the kilns. We need another paving-brick plant. We cannot near supply the demand.

The city has granted a charter to a street-railway company to build an electric-light line through this city and between here and Huntsville, a distance of seven miles, and also a franchise to the electric-light and fuel company to enlarge our present system of electric light and gas.

Our Commercial Club is taking much interest in new enterprises by encouraging such to locate with us. Our town is in a prosperous condition.

GEO. W. SPARKS, Acting Secretary.

New Plants for Parkersburg.

[Special Cor. Manufacturers' Record.]

The Business Men's League, Parkersburg, W. Va., August 27.

I beg to state that Mr. F. W. Fowler of No. 626 Farmers' Bank Building, Pitts-

burg, Pa., will build a seven-kiln pottery at Parkersburg. This pottery will employ 300 people, and the company will have a capital of \$200,000, and part of the stock will be taken by local people. The papers of incorporation will be prepared the first of the week. The main building will be 270 by about 500 feet in length, and part of it two stories high, built of brick and concrete. The title of the company will be the Parkersburg Pottery Co. I also beg to state that yesterday afternoon the Colonial Plate Glass Co. decided to build its factory at Parkersburg. This company will start with a cash capital of \$200,000, and will manufacture all of the staple lines of plate glass. The organization will also be perfected next week. Information in reference to the company at the present time can be obtained from H. H. Patterson and F. S. Brockett, both located at No. 1308 Farmers' Bank Building, Pittsburg, Pa. The pottery plant will employ 300 people and the plate-glass factory will employ 225 at the start, but it is the intention of the plate-glass people to increase the size of their plant each year, and expect within five years' time to employ 1000 people.

commercial and industrial conditions relating to cotton said:

"It has seemed to me for the last year or two that any careful study of the cotton situation made it absolutely certain that we had entered upon a period of higher prices, and that if the cotton manufacturers of the world would accept the situation instead of insisting that these higher prices were due to speculation, which was only one factor in bringing to public attention what otherwise would inevitably have come a little later by natural conditions, they would have saved themselves great losses. The world can adjust itself to higher prices for cotton goods, but it will not do so as long as cotton manufacturers are insisting that the raw material is too high and that it must decline. So long as the market is falling, or so long as manufacturers of any kind of goods are telling consumers that prices must decline, consumption will inevitably decline. People buy on a rising market, and rarely, if ever, on a declining market. With the exception of two brief periods—one between 1843 and 1848 and the other between 1891 and 1899—the world has for a hundred years taken cotton at a higher average than present prices, and there is no possible reason why it will not do so again."

* * *

Somewhat in contrast with the suggestion of stability in prices and avoidance of wide fluctuations, so conservative and trustworthy an authority as Mr. Atwood Violet comes out with a circular-letter containing, among some interesting and instructive cotton facts, a eulogy on the New York Cotton Exchange as an institution worthy of patronage by reason of "the inseparable relations between actual cotton and contracts for future delivery." Without going into the merits of that question, here are interesting paragraphs taken from Mr. Violet's pamphlet:

"The natural increase in the world's population in civilized countries requires a still larger supply of cotton yearly, and if to this is added the naked populations of Africa, India and elsewhere, and also the substitution, to a large extent, in

China and Japan of cotton goods for what they had previously worn, makes the probable yearly requirements of cotton of all kinds, and particularly that grown in the 10 Southern States of this country, something far beyond the maximum crop to date in all cotton-producing countries.

"Civilization is yearly embracing within its bounds hundreds of thousands of human beings previously outside of its pale, so far as clothes are concerned. The fact that they are being brought into contact with white people and the influences engendered thereby brings to their notice the need of a petticoat or a shirt, where previously such garments had been conspicuous by their absence."

The following quotations from J. L. Watkins, the cotton expert of the division of statistics at Washington, also appear in the Violet pamphlet:

"The consumption of cotton has increased so greatly within the past quarter of a century that there would appear to be no limit to its future possibilities. It is estimated that of the world's population of 1,500,000,000, about 500,000,000 regularly wear clothes, about 750,000,000 are partially clothed, and 250,000,000 habitually go almost naked, and that to clothe the entire population of the world would require 42,000,000 bales of 500 pounds each. It therefore seems more than likely that the cotton industry will go on expanding until the whole of the inhabited earth is clothed with the products of its looms. This is not an unreasonable conclusion when we consider the fact that cotton is the cheapest material for clothing known to man. In the meantime, it may come to pass that the world's area suitable for cotton culture may have to be seriously reckoned with, just as was the case during the Civil War."

"But when the requirements of the world reach from 35,000,000 to 40,000,000 bales will the Southern States be equal to the emergency, as they were after the Civil War? Will they continue meanwhile to retain supremacy in cotton production? We have every reason to believe that they will."

The Readjustment of Cotton-Goods Prices.

By THOMAS P. GRASSTY.

[Written for the Manufacturers' Record.]

"The present prospect," said President "Sam" Morse (as everybody calls him), of the Southern Cotton Corporation, "is better now than ever before for a recognition by the consuming public and by the cotton-goods trade of the fact that fair-priced cotton has come to stay, and that there must be a readjustment of prices for cotton goods in conformity with the fundamental law of supply and demand. The most difficult commercial lesson that dealers in and consumers of cotton goods have ever been called upon to learn, and one that they have consistently striven not to learn, is that prices for goods must correspond with the cost of raw material. While admitting this in a general way, they have believed, and many of them honestly, that fair-priced cotton (and by fair price I mean a price that will give to the producer a fair return for his labor) is a temporary and not a permanent condition. During the past year manufacturers have been the chief sufferers from non-readjustment, partly through their dependence on the selling agents and consequent inability to think and act for themselves. The main cause, however, of their difficulties has been what may be termed 'commercial mulishness' on the part of the foreign and Eastern 'powers that be' in the cotton-goods trade of the world—'powers' that have constantly and persistently 'harked back' to low-priced periods, refusing to believe that these periods have been outlived in the progress of the world. They have insisted that a price profitless to the producer must return. They have taught the consuming public to believe that the abnormal was the normal. They have been unable to realize that while their enormous resources and commercial machinery were capable of delaying for a time an inevitable result, they could not be so handled as to produce a reaction in violation of every sound commercial law and antagonistic to the spirit of the age. Under the promptings of hope, rather than sound judgment, they have contended, and at times with much plausibility, that higher prices were the result of speculation alone and must be but temporary. Manufacturers have been the real sufferers from all this unnatural commercial stubbornness of the East and of Europe, and the quicker they learn that comparative sta-

bility in prices and fair play all around will be the rule of the future rather than the exception, as in the past, the better it will be for them. Along no other lines may they expect permanent prosperity. Their interests are inseparably bound up in the success of the movement for the better handling of cotton, for the abolition of wasteful practices and the storage of the surplus, if ever there shall be a surplus, until the world comes to need it."

The truth is, S. F. B. Morse is the one man who, coming up out of the South, has reached commanding prominence and is qualified to solve perplexing cotton problems in a way to harmonize imaginary differences for the furtherance of the welfare of every interest. One of his most striking characteristics is an innate love of fairness, and is always shown by a considerate regard for the point of view of "the other fellow" in every discussion or controversy. Underlying this trait is a sterling honesty and a broad patriotism, which have made him thousands and thousands of friends all over the South.

Continuing this discussion from the standpoint of Southern cotton mills, Colonel Morse said:

"I have tried to measure this situation looking solely to the best interests of all the people of the South. My sympathies were primarily with the grower, whose condition during low-priced periods was pitiable beyond belief. At the same time what is best for the Southern spinner has of late been a matter of deep concern to all true friends of the South. I have time and again echoed the statement of the editor of the Manufacturers' Record that the cotton mill is the greatest missionary that has ever preached in the South, since the building of the cotton mill, whether so intended or not, is the first step to make possible the real educational advancement, and religious also, of that class of people who have sought cotton-mill employment. The cotton mill is the evolutionary agency that will lift this peculiar element out of a mental and physical starvation that has lasted for generations, and so it deserves the heartiest godspeed."

* * *

Discussing the same subject, i. e., the inevitable readjustment of cotton-goods prices, another painstaking student of

BUILDING AND LOAN ASSOCIATIONS.

The Means for Co-operative Savings by Southern Working People.

By D. A. TOMPKINS.

[Written for the Manufacturers' Record.]

CHAPTER III.

Essential Principles of Building and Loan Associations.

The first requisite of a savings institution is that it must be safe. In the discussion of these co-operative associations an effort will be made to exhibit on the one hand the conditions which are necessary for safety, and on the other hand those conditions which have contributed most to failures among so-called co-operative savings institutions.

The development of the life insurance business has led to many schemes, based apparently on the same general principles which govern life insurance, some of which were mistakes, and many of which were swindles. The benevolent features were always put in evidence, but the errors and cheats could not always be seen until it was too late. Life insurance has survived in spite of multitudinous mistakes and swindles perpetrated in the name of life insurance. It has survived because there was enough good in it to save the general principles under which it somewhat equalizes human burdens.

The building and loan association has been the victim of the same sort of vicissitudes. Many mistakes have been made, and many swindles have been perpetrated, but there are too many families living in their own homes, which have been bought through the building and loan associations, and which could not have been bought in other ways, to let the principle of the co-operative institution be driven out. Mistakes and swindles will tend to be eliminated, and the system will become still more extensively developed. No practical reason appears why American farmers should not adopt and apply the system, as well as American mechanics already do, and as well as German farmers already do.

The laws of the various States should classify and forbid what are known to be errors in the methods of co-operative associations. They should severely punish those who perpetrate or attempt to perpetrate swindles upon the people under the guise of operating a building and loan association. Sometimes an association is organized with the best intentions, but subsequently falls under incompetent or dishonest management. Therefore, it is important for the State to inspect and regulate the management of building and loan associations, just as it inspects and regulates the management of banks and life insurance companies.

Indeed, while the building and loan association is capable of bringing to a people the most beneficent results, the abuse of the name or of the appearance of the principle gives the best possible opportunity for fraud by extortion and otherwise.

The best form of association would seem to involve the following points:

First. It should be local.

Second. Its intervals of payment should be suited to the average usual manner of income of its members.

Third. Its rules as to prompt and regular payments should be rigid, and should be rigidly enforced.

Fourth. Its shares should be \$100 par value, and the interest rate 6 per cent.

Fifth. Loans should be made in the order of application for them, and should be made at the par value of \$100 a share, without discount, bidding, premium or reduction of any kind.

Close association is a sharp spur. People living in the country, where families are considerably separated, are rarely so careful about neatness as those who live in towns and cities. The influence of doing things jointly, too, is always strong. Association with a number of other people, many of whom one knows and is likely to meet at intervals in social life or in business, rarely fails to stimulate the individual to his best endeavors to do his part in any organization as well as the average, or better. Club members usually regard club dues as a first debt to be paid.

The moral influence of local and social association has its effect upon the officers of an organization, as well as on the members. Where the members have easy access to the officers, and meet them in daily life, the opportunity and the desire to do wrong are minimized. Here again is seen the effect of aggregated influences. The officers are encouraged and constrained to do right by the elbow touch of the entire membership.

The co-operative savings institution, to be successful, must be of a kind that aggregates the strength and influence of its members, and it must also be so situated that this aggregate influence is always upon its officers, thus constraining in them the greatest circumspection, and constraining each member to the highest degree of effort to keep himself straight with his associates. In local institutions the consciousness of oversight stimulates each member to keep his property in better shape, pay



A BLOCK OF CITY HOMES. \$3000 HOUSE, PAID FOR IN 6½ YEARS. DUES PER MONTH \$30; INTEREST \$15; TOTAL \$45. LOT NOT INCLUDED.

his dues and interest with unfailing regularity, and be sober, industrious and economical.

The system may be varied in many ways as to payments, fines and other regulations, to suit different conditions; but the aggregation feature, in some form or other, must always be preserved. The meaning of this is that the great bulk of the members must know each other, or at least be near enough together to attend meetings in case of trouble, and that loans must be made only on property so situated that it may be readily visited by an examining committee, and may, if occasion requires, be inspected and passed upon by the bulk of the members. This means that all the property taken for security must be within a limited local area, say a city or a township, and that most of the members must live within this area. The character of a member who borrows is an important element in the security of the loan. It, as well as the mortgaged property, ought to be under the observation of the members.

These considerations establish the first condition, namely, the successful building and loan association must be local. Any limit is suitable within which people are likely from time to time to see something of each other. Ten miles is of little consequence to a farmer, who has facilities for the trip, and has the habit of traveling more or less over the country, while for a machinist it would be both inconvenient and unusual to go into the country to inspect property. It would not be advisable for an association made up of workers in industrial pursuits in the town or city to take farm property lying at a distance in the country. In such an association property accepted for security must be in the town or city and the immediate environs. If farmers should undertake this sort of savings and loan association the county lines would usually enclose a territory that would be "local" within the meaning intended.

Membership need not be rigidly restricted to locality. Most of the members should, however, always come from the territory in which the securing property is to be taken. Indeed, the purpose of the association is that home people may save home money to buy houses to live in or to do business in, or that they may lay by something against a rainy day, or to make old age comfortable, or to raise and educate a family of children.

Many so-called building and loan associations have been formed on plans that were totally wanting in the essential features of co-operation. These spurious insti-

tutions are made up of members widely scattered, few of whom ever see the officers. It stands to reason that the very scattered condition of the members of such an institution prevents co-operation, and creates the very best opportunity for the officers to swindle the stockholders. These institutions are generally called national or interstate building and loan associations. Most of them have failed.

With possibly a few exceptions, they have somebody in some way connected with them who practices impositions on the members. The representative of these organizations, when discussing a subscription for stock, always shows how easy it is to withdraw; when later on application to withdraw is made, it is not found so easy. In one case a stockholder in Texas made application to withdraw from an Eastern association. He had paid in \$360, and was entitled under the by-laws to withdraw this amount, together with some slight profit. In answer to his application, he was advised by the secretary of the association that there was no money available for paying off withdrawing stock, and that there would be none available for nearly a year, or perhaps more than a year. The secretary had a friend, however, who would buy his stock for \$250. What is the Texas man to do, being 1000 miles away? Counting the cost of a lawsuit or a trip, he finds it cheaper, less trouble and more expeditious to accept the offer. The secretary is his own friend. As soon as the secretary received the stock he proceeds at once, according to the by-laws, to draw \$300 with the profit added.

In many ways institutions which have stockholders much scattered are liable to fall into bad habits. They may, in perfect honesty, make loans at distant points through local boards on property of far less value than the cash loaned. This error has been extensively committed, to the disappointment and injury of the stockholders when the time came for final settlement. Mortgages which instalments should have cancelled in six or seven years have run eight or ten years, and even more, because of bad loans on inadequate security or bad conduct in the home office, or both.

Notwithstanding these objections, it is not impossible that under certain favorable conditions or influences there might be devised an interstate or national association which could be made secure and desirable.

Exact knowledge of the condition of a corporation by the stockholders and by those who may wish to become investors, and a method for calling the officers back to regular operations (under the by-laws if necessary), are essential to fair dealing with the people. Up to a certain point these things may best be secured by localizing. When this is impracticable, or not enough, some plan of legal regulation and restriction is absolutely necessary.

It long since came to pass that the people demanded regulation and restriction of banks, and the publication of their statements in prescribed forms. Regulation and restriction of the insurance business has also been permanently established. Some degree of regulation and restriction of railroad management and publication of rates has been obtained. A number of manufacturing interests have been more or less combined or consolidated, but so far no regulation, restriction or publicity of accounts of any value has been attempted with reference to them.

Those interests where regulation, restriction and publicity of accounts are most complete have securities which are more attractive to the investor than those which work under cover. Government bonds, publicly issued and publicly handled, bring the highest prices and bear the least interest. The stocks of national banks, next best and most publicly regulated, bring the next highest price with the next lowest interest. Insurance companies come next. Railroads come next. Stocks of industrial combinations, practically not regulated at all, come comparatively low. An industrial stock drawing 7 per cent. preferred and cumulative dividend will bring, say, 90 per cent. of par value; a railroad stock paying the same will bring 150, a national bank stock 200, and a government bond, if there were any such, would bring 250.

There has been much criticism of the tendency to find fault with combined corporations or trusts. But it should be observed that the objection is not to the magnitude or the legitimate profits of a corporation. There has been consolidation of banking interests in New York aggregating enormous sums, yet no serious criticism has been made. There are some other complaints against the banking law; the system is not flexible, and does not sufficiently serve the interests of the whole people; but the matter of size and profit creates no serious prejudice. The knowledge of the condition of national banks, which is disseminated by the government, satisfies people about all questions relating to capital, issues of stock, conduct of business and other such matters.

The only way to insure success, or a reasonable probability of it, to a building and loan association operating on the national or interstate plan would be by government restriction and control, with examination and publication of accounts by good experts like the national bank examiners.

With such examination, publicity and control such organizations might be made not only safe, but advantageous both to the investing stockholders and to the borrowing stockholder. The prosperous locality, where money for investment is more or less plenty, could then furnish money to invest in less favored sections. People having valuable resources in less-developed localities, by joining such an association, could borrow money at a lower rate than in any other way; the transaction would be profitable to themselves and to the investing members.

In the absence of laws, or with inefficient laws for control and regulation, the interstate plan of association had better be let alone. The time may come when, under control and regulation, it may become all right; but it is not yet.

The next important condition for a successful association is that regular and prompt payment be secured. To this end the times of payment should be fixed to correspond with the usual pay-days at the various works, stores and other institutions in the town or city. An association of farmers would naturally fix their instalments to suit the marketing of their crops, having them come quickly on the heels of their principal sales.

Whatever the appointed times of payment, strict observance of them should be rigidly required. One of the most wholesome and advantageous influences of the land banks of Germany has been the education of the farmer to a knowledge of what prompt payment means.

Most of us need just a little pressure to make us do fairly by ourselves in the matter of husbanding the fruits of our labor. Working people are usually rather liberal and generous, and there is always a crowd of human parasites that live on the labor of others. If the savings institution would succeed among workingmen, it must shape its rules so that they may and must pay in their money before these

parasites can get it. Once satisfy the member that the instalments paid in are safe, and to his own account, and he is willing enough to pay in his money whenever he has it; but if he must wait long, or even if he may wait long, his money is likely to go before he knows it, and in ways that are unaccountable even to himself. It is important, therefore, to make the instalments suit pay-days, to fix a fine to enforce payment, and to be strict in requiring that payments be prompt. It is not desirable to be so inflexible in the enforcement of rules as to cause hardship; temporary failure to pay on account of unavoidable accidents or sudden and temporary sickness should be judiciously overlooked occasionally. This should be done, however, only in special cases.

The plan of bidding for loans, though not so disastrous as that of scattering the members, is very undesirable. By this plan the money is loaned by auction, as it were. Whoever bids to accept a loan at the greatest discount gets it. Sometimes the bid is 5 per cent. discount, or "premium," as it is called. Sometimes it is 10 per cent., and even higher. As much as 40 per cent. has been known to be bid. This is taking advantage of the needs of members in a very unfair way. Where two men want money it would be much better to accommodate both without discount, and in the order of their application.

Some associations have had a fixed discount or "premium." In Bethlehem, Pa., a fixed premium of 12 per cent. was popular some years ago, but is now abandoned.

By far the best way is to have applicants for loans listed in order, and to assign accumulated money in regular order and at par, according to the list. By knowing the rate of income of the association and the aggregate of applications ahead, any one applicant can be told with approximate accuracy when he can get the money applied for. Knowing this, he can easily make his arrangements without being harassed, as he might often be if bidding had to be done to get a loan.

[TO BE CONTINUED.]

INVESTMENTS IN TEXAS OIL.

Summary of Developments There in Forty-three Months.

[Special Cor. Manufacturers' Record.]

Beaumont, Texas, August 26.

The investment in the Southeast Texas oil industry from January 1, 1901, to August 15, 1904, is estimated as follows: Cost of drilling 1627 wells, at an average expense of \$4000 per well, \$6,508,000; cost of equipping 1200 wells, at an average expense of \$1350, \$1,620,000; cost of 10,193,000 barrels of open-ground storage, at 13 cents per barrel, including land, \$1,325,000; cost of 7,232,000 barrels of covered-ground storage, at 17 cents per barrel, including land, \$1,229,440; cost of

15, 1904, is 51,850,000 barrels. This is divided as follows: Spindletop, 33,000,000 barrels; Sour Lake, 11,500,000 barrels; Batson, 7,000,000 barrels; Saratoga, 250,000 barrels; a total of 51,850,000 barrels.

Shipments of crude and refined oil for the first six months of 1904 amounted to 9,154,000 barrels.

In the three years and seven months \$36,307,230 have been invested in the field, and considerably more than \$4,000,000 has been paid out in wages.

The following table shows in summary the results of the operations in the several fields up to August 15 from the date of the beginning of operations:

Wells:	Batson, Nov. 1, 1903.	Sour Lake, Spindletop, Saratoga.			Total.
		Apr. 1, 1903.	Feb. 1, 1901.	Jan. 1, 1903.	
Completed	440	467	650	70	1,627
Abandoned or dry	58	213	502	35	808
Classed as producers	382	254	148	35	819
Drilling	42	15	8	3	68
Rigs up for new ones	25	.....	3	.....	28
Average daily output in August, estimated, bbls.	15,000	15,000	6,000	2,000	38,000
Output of field, estimated, bbls.	7,000,000	11,500,000	33,000,000	350,000	51,850,000
Storage capacity, bbls.:					
Open ground tanks	5,300,000	2,393,000	2,500,000	.....	10,193,000
Covered ground tanks	.....	1,107,000	6,125,000	.....	7,232,000
Steel tanks	202,500	1,217,500	7,400,000	370,000	9,190,000
Total	5,502,500	4,717,500	16,025,000	370,000	26,615,000
Oil in storage, bbls.:					
Ground tanks	100,000	.....	.....	.....	.....
Steel tanks	125,000	.....	.....	.....	.....
Total	225,000	2,000,000	8,000,000	252,000	10,477,000
Capacity of wooden settling tanks, bbls.	240,000	200,000	150,000	30,500	650,500

This summary covers a radius of 10 miles at Batson, of five miles at Sour Lake, of five miles at Saratoga, and of the immediate vicinity of Spindletop. In the storage capacity of Spindletop is included the capacity at Beaumont, Port Arthur and Sabine and the refineries. The estimate of Spindletop production takes no account of the oil wasted from the gushers in 1901. The oil in storage does not include 2,250,000 barrels of railroad storage or 1,800,000 barrels at the Southern Pacific, Santa Fe and Kansas City Southern reserve stations.

9,190,000 barrels of steel storage, at 25 cents per barrel, including land and not including railroad storage, amounting to 2,250,000 barrels, \$2,207,500; cost of 444½ miles of pipe line, constituting the gathering systems of the various companies, at \$6000 a mile, including the expense of pumping stations, right of way, etc., \$2,607,000; cost of refineries constructed to refine Texas crude exclusively, \$8,000,000; cost of 2000 tank cars employed in the Southeast Texas trade, at an average cost of \$1200 each (the Southern Pacific Railroad has more than 1000 cars in the trade, which cost above \$1500 each), \$2,400,000; cost of 50 tank steamers and barges used exclusively in the transportation of Texas crude and refined oils from Port Arthur and Sabine to New Orleans, Cuba, Mexico and Gulf and Atlantic coast points, \$6,000,000; cost of oil lands, \$4,000,000; cost of 650,500 barrels of wooden settling tanks at 40 cents per barrel, \$260,200; a total of \$36,307,230.

An estimated production of oil in Southeast Texas from January, 1901, to August

L. Company's six-inch line, 15 miles; total mileage, 55.

Gladys to Sabine—Security Company's four-inch line from refinery, 29 miles, and six-inch line from refinery, 29 miles; Sun Company's six-inch line, 23 miles; total mileage, 81.

Tank, dock and pump-station connection for various lines—mileage, 60½.

Total length of all pipe-line systems in Southeast Texas fields, 441½ miles.

The refineries in Southeast Texas are: Gulf Refining Co., Port Arthur, capacity about 8000 barrels of crude oil a day; Security Oil Co., South Beaumont, capacity about 4500 barrels of crude oil a day; the Texas Company, Port Arthur, capacity about 1000 barrels of crude oil a day; United Oil & Refining Co., Spindletop, capacity about 400 barrels of crude oil a day; Colonia Oil Co., Port Arthur, capacity about 100 barrels of crude oil a day; Central Asphalt & Refining Co., Port Neches, capacity about 500 barrels of crude oil a day—not in operation.

It was thought when Spindletop oil first came to the notice of Northern operators that it was strictly a fuel proposition. This idea has been dispelled through the investment of \$8,000,000 in refineries located near Beaumont for the purpose of manufacturing the various products of petroleum from the Southeast Texas crude. Today the kerosene and gasoline manufactured from Southeast Texas crude petroleum are being sold all over the South, the people of Texas are using the Southeast Texas refined oils, and the same products are going in mammoth cargoes to the markets of Europe and to the Far East.

The certainty of an abundant supply has given the industry an impetus which would have been lacking if there had been no discoveries after Spindletop. The opening up of Sour Lake and Batson has dispelled all doubt in the minds of operators as to the existence of many similar pools in this region. Wildcatting is being systematically prosecuted throughout the counties of Jefferson, Hardin, Liberty and the other counties of East Texas. A revival of operations has been brought about at Nacogdoches, where oil has been known to exist in quantities for 20 years. New wells drilling there now have encountered the oil sands at various depths, and a discovery of the same magnitude as Batson or Sour Lake would not be surprising.

At Matagorda, farther to the west and on the other side of Houston, oil has been found in four or five wells, and one is now said to be producing 500 barrels a day. Loading racks have been built, and oil is being shipped from this new field. Development goes steadily on, and the importance of the field may be increased at any time.

At Barber's Hill and at Humble the best of indications have been encountered in wells drilling at those places. Both points are nearer Houston than they are to Beaumont; hence it is probable that in the event of the development of a large oil pool the city of Houston would benefit enormously by the discovery.

At Sour Bosque, near Waco, Texas, oil has been found in shallow wells in sufficient quantities and of such excellent quality as to attract the attention not only of the producers in Southeast Texas, but also of the refining companies. As a result drilling operations are progressing with the prospect of opening up a field of light oil.

Tests of the product of the South Bosque wells show it to be of paraffin base and of 39.6 gravity. These two features indicate that it is among the best oils for refining purposes that have yet been found in Texas, not excepting the older fields of Corsicana, which are not described in this article.

In Clay county, Texas, north of Fort Worth, operations have assumed considerable proportions since certain oil men from Southeast Texas have gone into the field. This pool is located 12 miles from Henrietta, and a pipe line is now being constructed to the railroad to give an outlet for the oil. The wells are small, but their product is a light oil, which is desirable for refining. Probably 60 wells have been drilled in the Clay county field, and more than half of this number are now said to be in operation.

The Morse Oil Co.'s well No. 8 in the Jennings (La.) oil field caught fire last Thursday, which extended to the Morse No. 6 and No. 7 and the Bienville Oil Co.'s No. 2. Within 48 hours the three wells had been smothered. The total loss was \$20,000. The Morse No. 8 was just being brought in when it caught fire. It developed a tremendous pressure, and all the estimates of its capacity agree that it is above 7500 barrels a day. It is probably a conservative estimate to figure it at 8000 barrels. The field has been the center of attention on the part of Texas operators ever since the Producers' No. 4 well came in on August 4—a 4000-barrel gusher. This well continues to flow, and is doing about 2000 barrels a day. With the Morse No. 8 flowing the field will probably make 15,000 or 16,000 barrels a day so long as the gushers hold up.

New work is being pushed. The Bass-Benckenstein well is down 1000 feet and the Heywood Oil Co. No. 1 has been started. Earthen tankage with a capacity of 800,000 barrels has been contracted for, and Jennings will doubtless cut more figure in the Southwestern oil market than it has heretofore.

Another good well has been brought in at Sour Lake by W. B. Sharp. It is on the west side, and started off at 1000 barrels a day.

The Texas Company has cut the price of oil in its lines to 35 cents for Batson and 37 cents for Spindletop, Sour Lake and Saratoga. This is under the general market. The Security Oil Co. is paying 40 cents a barrel for Batson oil and 40 cents for Sour Lake oil. Sales of Spindletop crude are reported at 44 cents in the Guffey tanks. However, it seems to be the determination of some of the large buyers, notably the Texas Company, to depress the market, and cheaper oil may be expected if they are able to carry out their policy.

HOLLAND S. REAVIS.

The Alabama Miners' Strike.

[Special Cor. Manufacturers' Record.]

Birmingham, Ala., August 29.

The question yet pervading iron circles is that of the strike. Everything is subordinate to that. There have been some infractions of the law and some intimidations towards the new labor imported to take the place of the old miners. In one case a house occupied by non-union labor was blown up with dynamite, but the occupants suffered only a severe shaking up. At other places the same tactics have been employed, but not so severely. But it shows a very unsettled condition of affairs and almost dispels the hope that we would get through the matter without any violence. The operators have been stirred up, and have offered substantial rewards for evidence to convict the malefactors.

The district has been pretty well covered with deputy sheriffs, but in case of a conflict they would offer but a small protection against the body of miners if they were aroused.

The operators recognize the fact that if they import new labor they must be prepared to give it protection, and in this regard they are standing shoulder to shoulder and working in harmony. The leaders of the United Order of Mine Workers fully appreciate the necessity of

keeping within the pale of the law, and are constantly urging their members against the violation of the law. But there is an element among them hard to control whose interpretation of the law is wholly in accordance with their ideas of their interests. If any trouble comes it will be from this class.

Arrangements have, as a rule, been completed to demand the possession of the houses owned by the various companies, but occupied by the striking miners. This has been met by the miners with a counter proposition to furnish tents to those evicted until the differences are settled. The operators contend that they have made progress both in the importation of labor and in the output of coal. But the labor leaders contend that while they have gained at some places they have made equal losses at other places. So it makes it a difficult matter for an outsider to come to a definite conclusion on this point.

But the statement is hazarded that the operators are working more men now than when the strike commenced. An appreciable number of miners are moving from their old camps and going to other camps and entering these camps as non-union miners. The operators profess satisfaction with the situation, and declare that they will close up their mines sooner than submit to the demands of the miners. A very important official of one of the leading interests said to your correspondent today that it would not surprise him if the operators had a long fight of it, but of one thing he was satisfied, and that was, that there would be no compromise.

As to the price of iron, there is practically no change in the market. The demand for the lower grades may have been somewhat increased, but the average demand has been about the same. Some No. 1 soft was sold at \$10, as was some No. 1 foundry. Some No. 2 foundry and some No. 2 soft were sold at \$9.50. Some No. 3 foundry was sold at \$9.25, and some No. 4 foundry at \$9. Some gray forge sold at \$8.75. But these low grades continue in light supply, and are not easy to obtain.

J. M. K.

IS NEW ENGLAND MENACED?

A Rhode Island Inquiry Turning Upon the Textile Industry.

[Providence (R. I.) Board of Trade Journal.]

Is the business life of New England at stake? Does the sword of Damocles hang over its head? These questions are not idle thoughts, nor are they written without a full appreciation of their meaning; they are written in soberness and truth, with the hope that they may awaken the people of New England, the bankers, the individual capitalists and the merchants, as well as the manufacturers, to a serious consideration of the possible danger.

Possibly the public at large has not quite understood how absolutely essential to the business life of New England is our cotton industry. For years we have faced its relative decline; we have seen Southern consumption increase in 10 years from 600,000 bales to 1,900,000 bales, while New England has stood still, its consumption being only 2,000,000 bales now against 2,000,000 bales as far back as 1891. We have seen the Dwight, the Merrimac, the Massachusetts Company and other great corporations for a generation or more the pride of New England, build great mills in Alabama, Georgia and other Southern States, and now we face a new crisis greater than any of the past in the organization of the Southern Cotton Corporation. Let us seriously study, for a moment, the plans of this company as they may be made to affect the future of New England unless we are wise to meet the situation. We know the charac-

ter, the power and the financial strength of some of the men back of this organization, men who have done a mighty work for New England's development, and who, after a most patient investigation of the plans of some of the farseeing leaders in Southern development, have joined in an undertaking which, besides the capital it has at its command, has also the greatest mechanical and engineering skill available in this country. These people propose to improve the ginning and compressing of cotton. As this will improve the staple, lessening the cost of insurance, and bring the cotton to market in better condition than heretofore, this feature of their plan is of importance to every cotton spinner in the world, so that this feature of the work of this company does not militate against New England. In addition, however, to the improved methods of ginning and compressing, the company proposes to establish throughout the South a system of warehouses whose receipts are to be made "gilt-edge" collateral in any money market of the country. That means the storing of the cotton in the South by Southern farmers and Southern mills at a low rate of interest, thus absolutely destroying one great advantage now possessed by New England over Southern mills in the lower rate of interest which our mills enjoy as compared with their competitors in the South. It means, moreover, an immense increase in Southern banking business, as cotton, which in itself is the best possible basis for banking collateral, will be financed by Southern banks through these warehouse receipts with more safety and more profit to the banks than the present system, and at the same time bring greater profit to the grower. A leading New England mill man, at one time president of the New England Cotton Manufacturers' Association, is quoted as having recently said that in his opinion this is the greatest and most far-reaching business proposition that he has ever seen, and although having no personal interest in it, he realizes its tremendous significance and its vast influence on the world's cotton trade. We are advised that the Southern Cotton Corporation is to be absolutely free from speculation; that it does not intend to buy or sell cotton; that it will not in any sense be a trader in cotton, but it will simply, in addition to its improvements in ginning and compressing, provide warehouses for the public and issue to the farmer or anyone else a receipt for cotton placed in its warehouses, and then guarantee, if desired, to provide loans against these receipts. Naturally Southern bankers will see in this the same opportunity which the grain elevator receipts gave to Western bankers to finance the entire crop themselves, instead of having it done by the East and Europe. All of these advantages vastly strengthen the South's position in dominating the cotton world, and this move ought to be met by some comprehensive work by New England people.

Is it true that New England's business life is at stake, and that the plan of the Southern Cotton Corporation is the sword of Damocles which hangs above us? Let us see. New England has in round figures about \$300,000,000 invested in cotton mills, with as many million more invested in textile machinery plants, in engine works and kindred enterprises, absolutely dependent on the maintenance of our cotton trade. Allow the cotton-mill industry to leave us, and it would mean not simply the destruction of this industry and its \$300,000,000 of invested capital, but it would mean the transference to the South of the several hundred thousand operatives now employed in our mills and kindred industries. That would mean that the mechanic and the day laborer, whose families

now work in the cotton mills, and thus add to the family income, would have to follow the mill operative. Our great engine interests, our textile machinery builders and many cognate industries would be left with but a limited local market for their product, and without the supply of labor now available would have to follow the mills South. These industries are already at a disadvantage. They have to bring their iron from the South or from the West, turn it into machinery and ship a large part of this machinery back to the South. With \$300,000,000 in cotton mills, and probably equally as much invested in industries connected with cotton manufacturing, and dependent for success upon the cotton trade, we may safely say that \$600,000,000 of New England's industrial capital is at stake.

The vastness of this can be understood by a few comparisons. This \$600,000,000 which is at stake is only 20 per cent. less than the aggregate capital of all of the national banks of America, and is nearly the same as the market value of the Standard Oil Co., whose operations cover the world. With this \$600,000,000 wiped out, or moved to the South, would we not indeed see the industrial decline of New England?

But New England can save itself. We

are not accustomed to give up or to sit supinely down and bemoan fate. We can bid the South godspeed in its development if we will take care of our own, for there is room enough for both sections without the one prospering on the ruins of the other. If our people, our bankers, and every man interested in the prosperity of New England will awaken to our danger we can take on a new lease of life. We must be prepared to re-equip with modern machinery every mill that is not up to date. We must send to the scrapheap every engine or boiler or loom that is not producing the highest possible results; we must, if necessary, forego dividends for a while, or invest new capital in the re-equipment of our mills, and thus stop the Southward trend of cotton-manufacturing capital, and at the same time provide facilities for lessening the cost of getting cotton from the South to the mills.

Is New England equal to the emergency, and will it save itself from such overwhelming loss as will come about if it should not prove equal to its danger and its opportunity? We have seen our iron industry, our rolling mills and many kindred things leave us, but they were of minor importance as compared with that industry on which our business life is staked.

INDIVIDUAL EXHIBITS AT ST. LOUIS.

[Special Correspondence Manufacturers' Record.]

St. Louis, Mo., August 29.

Machinery Day at the World's Fair has been set for Saturday, September 10, and not only has there been arranged for that day a program of special note, but events of much interest to technical machinery men and engineers, as well as to the public generally, have been provided for the entire week following. By many it is urged that any Saturday is the best time to begin to "do" the fair, as the Sunday's rest following the first fatiguing experience on the immense grounds gets the visitor into a seasoned condition, as it were, so that subsequent sightseeing trips are less wearisome than they would otherwise be. Under such circumstances, Saturday, September 10, is pointed out as a particularly good time to begin seeing the fair.

Machinery Day will be of great interest to all who have anything to do with steam engines, steam turbines, gas engines, machine tools, woodworking and abrasive machinery, and the vast number of other appliances shown in Machinery Hall. Not only will every power unit in the 50,000-horse-power end of the building be in operation all day, but arrangements have been made to have special demonstrations carried on in various portions of the building. Barrel-making machines will show how it is possible to make a flour or sugar barrel out of the rough wood for less than three cents each; grinding machines, throwing out live fire amid fountains of water, will show how they can cut steel as rapidly as a lathe tool, while in lathes and planers, tools of the new self-hardening steel will demonstrate their ability to take off steel chips an inch thick at a rate of 100 feet an hour or so.

Across the aisles from the big engine, the biggest ever shown in an exposition, stands a case containing the smallest to be seen in St. Louis. These tiny engines are working, and they present a curious contrast to the big one. The big engine, with its 5000 horse-power, stands about 40 feet high above the floor. It weighs 720 tons. Its whole power is required to furnish electric current for the 200,000 incandescent lamps which decorate the exposition buildings and grounds.

The little engines are small enough to hold in the palm of one's hand. They are models of pumping engines, and a pair of

them are engaged in pumping water into a copper tank.

Leather belts successfully operating in water, submarine mines ready to blow up warships, wooden pulleys as high as a two-story house, dredge scoops that take up a couple of tons at a bite, conveyors for packing boxes and for coal, an automatic electric elevator, are some of the features to be seen in the building. Many of the exhibitors will hold special receptions on that day, and there will be music all day, and music, refreshments and dancing in the evening.

On Sunday the American Institute of Electrical Engineers, with hundreds of electrical engineers as guests from England and the Continent, will arrive at St. Louis for the Electrical Congress, which will continue through that week.

On Wednesday Electricity Day will be celebrated. Every exhibitor in the Electricity Building is preparing some special feature for that day, and jointly they will have water and land parades with illuminating effects never before shown on the fair grounds. St. Louis Day follows, September 15. This will probably be the most notable day of the fair for attendance. To the special attractions which will be provided for its celebration will be added those prepared for Electricity Day, for these will be again shown on St. Louis Day. Many bodies of engineers and other prominent persons from home and abroad are expected to visit the fair during that week.

THE FERRIS WHEEL.

No one who has ever taken a ride on the famous Ferris wheel, which at the St. Louis Exposition occupies a place of hardly less prominence among the attractions than it did when as a world novelty it first dawned on the view of visitors to the Columbian Exposition at Chicago, can ever forget the awesome thrill which comes with the majestic sweep into space as the car swings out and up to its height of 260-odd feet above the surface of the earth. Within recent years but two great novelties have been produced for world's fairs—the Eiffel tower in France and the Ferris wheel in America. In spite of the utmost endeavors of engineers and inventors to devise some new marvel of engineering and mechanical genius, it has been

impossible to contrive anything at all comparable with these truly wonderful examples of constructive ability. Thus it was that the Eiffel tower did service as the great attraction of two Parisian world's fairs, and that the Ferris wheel, although handicapped with the cost and difficulty of a removal from Chicago, was declared to be the greatest mechanical marvel which could be obtained, and one without which the attractions of the Louisiana Purchase Exposition would be incomplete.

This much by way of history, to which may be added that the Exposition Company gave to the wheel a most eligible site on an elevation near the center of grounds. From here the wheel looms a commanding and picturesque figure on the horizon from almost any point on the grounds, while from the observation cars of the wheel a view of not only the wonders of the grounds, but of the city of St. Louis, the Mississippi river and the country for 50 miles around is to be had in the daytime, and at night the hundreds of thousands of incandescent lamps on the buildings of the exposition and of the concessionaries make the view like a glimpse into the heavenly city. No visit to the fair is anywhere near complete without a trip around the Ferris wheel, and so comprehensive is the view obtained, as well as thrilling and delightful as a spectacle, that the stranger is enabled to better study the grounds and familiarize himself with the lay of the buildings through one or two trips on the Ferris wheel than by a couple of days' tramping over the grounds.

Having determined to remove the wheel from Chicago to St. Louis, the owners were confronted with a task of well-nigh appalling proportions. Altogether the materials, which included a 70-ton axle, besides engines, boilers, derricks and false-work, weighed over 4200 tons, and it required 175 freight cars to transport it.

Although in a general way the appearance of the Ferris wheel is familiar to thousands of persons the country over who have seen only its pictures, a brief description of its dimensions and construction may be in order here. The wheel is built upon the bicycle principle, with immense tension spokes 2 15-16 inches in diameter. The wheel is 250 feet in diameter and stands 204 feet high. In reality it is two wheels securely braced together. Between the outer rims of these wheels the 11-ton cars are suspended on six-and-one-half-inch pins six feet long. These cars are 13 feet wide, 26 feet long, nine feet high and will carry 60 persons. There are 36 of them, so the total capacity of the wheel is 2160 persons. At several times in its history the wheel has been filled to its capacity. The axle of the wheel is a solid steel forging 32 inches in diameter and 45 feet long.

The solid bronze bearings upon which it rests are each six feet long and contain nearly two tons of metal. The weight of the wheel is carried upon two four-post towers six feet square on top and 40x50 feet at the base. These in turn rest upon solid concrete and steel beam pillars, which are carried down to solid rock 28 feet below the surface of the ground. The towers are anchored to the bottom of this mass of concrete by 2x6-inch eyebars, so that the wheel is perfectly safe, even in the most violent storms.

The side vibration of the wheel in an 80-mile-an-hour wind is less than one-half inch. The wheel is run by a double reversing engine with cylinders 30x48 inches, capable of developing 2000-horsepower. The power is applied through a series of cogs to a sprocket chain which engages wide cogs on the outside of each rim.

Two revolutions are given each passenger, and the time required is from 20 to 30

minutes. So majestically does this wheel move that a casual glance, when some distance from the site, might fail to detect any motion at all, and indeed strangers have often been heard to offer a wager on first seeing this wheel that it was standing stock still. To those in the car there is no such illusion, for with each turn of the cogs the wonderful panorama is gradually but more fully unfolded until one finally stands at the summit awed and hushed by the grandeur of the sight revealed.

Sand-Lime Brick.

Among the very interesting exhibits contained in the Mines and Metallurgy Building, those of the various sand-lime brick machinery makers are attracting no small degree of public attention. Descriptions of several of these exhibits have heretofore appeared in these columns, and mention is further due the display of the Scott Manufacturing Co. of Keokuk, Iowa, which has on exhibition a working model of a Scott-Andrus combination dry-press sand-lime and sand-cement machine. This is a four-mold brick press, and has a capacity of 20,000 to 25,000 brick per day. The exhibit is in block 20, in the Mines Building, and is in charge of Mr. J. A. McAnulty of St. Louis, who is assiduous in his efforts to impart complete information about the machine, its workings and the advantages of its product to all brick manufacturers who call at the exhibit.

Farm Machinery.

An extensive exhibit of saw-mills, threshers, engines for farming and general purposes and of various kinds of agricultural implements is made in the south end of the Agricultural Building, World's Fair, by the A. B. Farquhar Company, Ltd., whose factory is in York, Pa., and with export offices in the Cotton Exchange, New York city. There is an Ajax engine on a Cornish boiler, especially designed for saw-mill work; an Ajax center-crank engine on locomotive boiler, for running stone crushers, threshers, saw-mills, gins, and also for general farm purposes; a Farquhar variable friction-feed saw-mill, with latest improvements and attachments, including log turner, suitable for use on portable mills; a Farquhar vibrator separator, with self-feeder and band cutter, wind-stacker and automatic bagger; a portable Mexican engine and thresher rig, with many special features designed for and adapted to threshing and cleaning Mexican grains of all kinds; a Pennsylvania low-down grain and fertilizer drill, with all late improvements; a Farquhar Keystone corn planter, complete with fertilizer attachment and marker; a Pennsylvania steel-frame wheel and lever harrow; a Pennsylvania steel-frame float spring-tooth harrow; a special Mexican gang plow and double mold-board Reese plows and cast plows.

Pop Safety Valves.

A full line of the Ashton pop valves and steam gauges are exhibited in block 9 of the Machinery Building, and in addition there are valves and gauges in use on over 11,300 horse-power boilers in the exposition power plant. The Ashton Valve Co., whose main office and works are in Boston, Mass., makes pop safety valves and improved blow-off valves for locomotives, stationary, marine and portable boilers, water relief valves for pumps and water-works, cylinder relief valves for steam engines, pressure and vacuum gauges for all purposes, as well as pressure recording gauges. Its goods are in use on over 150 railroads, with a record of almost 30 years continued success, and they have been accepted by the United States Navy Department and the United States Board of Supervising Inspectors of Steam Valves.

The side vibration of the wheel in an 80-mile-an-hour wind is less than one-half inch. The wheel is run by a double reversing engine with cylinders 30x48 inches, capable of developing 2000-horsepower. The power is applied through a series of cogs to a sprocket chain which engages wide cogs on the outside of each rim.

Two revolutions are given each passenger, and the time required is from 20 to 30

MANUFACTURERS' RECORD.

TEXTILES

[A complete record of new textile enterprises in the South will be found in the Construction Department.]

Correspondence relating to textile matters, especially to the cotton-mill interests of the South, and items of news about new mills or enlargements, special contracts for goods, market conditions, etc., are invited by the Manufacturers' Record. We shall be glad to have such matter at all times, and also to have any general discussion relating to cotton matters.

Expects to Double Plant.

The Manufacturers' Record reported several weeks ago the incorporation of the Brazos Valley Cotton Mills for the purpose of acquiring and continuing the old West Cotton Mills at West, Texas. The company has since effected permanent organization with T. M. West, president; W. D. Lacy, vice-president; E. G. Blume, secretary; Albert T. Clifton, general superintendent, and J. A. West, treasurer. These officers, with James T. Brock, W. H. Janes, B. B. Ingraham and George N. Denton, are the directors. The company has a capital stock of \$100,000, and expects to double its plant within 12 months. Present equipment of mill is 4160 spindles and 210 looms, employing about 175 operatives.

Building an Additional Mill.

The Carolina Cotton Mills of Graham, N. C., has decided to make general improvements to its mill of 6000 spindles and 100 looms and build an additional plant to contain 8000 spindles and 500 looms. Plans have been prepared for the betterments and construction work has begun on a structure three stories high, 50x120 feet, to accommodate the new machinery. The company will also install a steam-power plant to be utilized in cases of emergency that may arise in the water-power plant. It is probable that the expenditures for these improvements will amount to \$100,000.

Adding 11,200 Spindles.

The Avondale Mills of Birmingham, Ala., will double the Central Cotton Mills of Sylacauga, Ala., the plant which the former company was recently reported as having purchased. There will be erected an additional building 100x330 feet in size, to be equipped with 11,200 spindles for yarn production, thus doubling the present plant. All contracts have been awarded. Contract for the engineering and architectural work was awarded to Messrs. T. C. Thompson & Bro. of Birmingham, Ala. The total expenditure will probably amount to more than \$125,000.

A \$1,000,000 Cotton Mill.

Announcement is made of a large cotton-manufacturing plant to be located at Fayetteville, N. C. The enterprise will be established by William Coleman, who is president of the Glenn-Lowry Manufacturing Co., now operating a \$500,000 mill at Whitmires, S. C. Mr. Coleman has purchased 450 acres of land at Fayetteville as site for the plant, which is to be operated by electric power obtained from the Cape Fear Electric Power Co. Full details have not been decided, but it is believed that arrangements will be made for a \$1,000,000 plant.

Textile Notes.

It is rumored that A. J. Baxter of High Shoals, Ga., will build a cotton factory at Watkinsville, Ga.

The Arlington Cotton Mills, Gastonia, N. C., has declared its usual semiannual dividend of 4 per cent.

W. P. Anderson of Westminster, S. C., is organizing a company to have capital

stock of \$20,000, for the purpose of establishing a knitting mill.

M. Craven of Springfield, Mass., does contemplate locating a woolen mill in the South, as reported last week. No definite decision has been made.

Newton (N. C.) Hosiery Mills is preparing to add 50 knitting machines in order to increase its output, which is now sold ahead for some months.

The Hagerstown (Md.) Silk Co. has purchased site at \$1056 for the erection of another silk mill. The company's present plant operates 12 looms on the production of silk ribbons.

The Manufacturers' Record is informed that the Barbour Flax Spinning Co., Grand and Prince streets, Paterson, N. J., and 48 White street, New York, will build a branch net and thread mill at Baltimore, Md.

It is reported that the Monticello (Ark.) Cotton Mills has nearly completed the construction of another building, which will be equipped with 2500 spindles and 150 looms. Present equipment is 5000 spindles and 24 looms.

The Alpine Cotton Mills, Morganton, N. C., has amended its charter, increasing capital stock from \$100,000 to \$250,000. Probably the company contemplates enlarging its plant, wherein are at present some 11,000 ring spindles and 3500 twisting spindles.

The Maple Cotton Mills, Dillon, S. C., will erect an additional building 100x300 feet in size to accommodate the 8500 spindles recently reported as to be added. W. M. Hamer, president of the company, is now completing the arrangements for building and equipping this additional mill.

The board of governors of the Southern Cotton Manufacturers' Association at a meeting at Charlotte last week adopted resolutions in memory of Dr. John H. McAden, for several years president of the association, and a member of the board of governors. Mr. R. M. Miller, Jr., of Charlotte was elected a member of the board to fill the vacancy caused by Dr. McAden's death.

QUOTATIONS OF COTTON YARNS.

By Paulson, Linkroum & Co., New York, Philadelphia and Chicago, August 30.

No. 10s-1 and 12s-1 warps.....	15 @ 15 1/2
No. 14s-1 warps.....	15 1/2 @ 16
No. 16s-1 warps.....	16 @ —
No. 20s-1 warps.....	16 @ 16 1/2
No. 22s-1 warps.....	17 @ —
No. 26s-1 warps.....	17 @ 17 1/2
No. 6s to 10s yarn.....	15 @ 15 1/2
No. 12s-1.....	15 1/2 @ 15 1/2
No. 14s-1.....	15 1/2 @ 16
No. 16s-1.....	16 @ —
No. 20s-1.....	16 @ 16 1/2
No. 22s-1.....	17 @ —
No. 26s-1.....	17 1/2 @ —
No. 8s-2 ply soft yarn.....	15 1/2 @ 15 1/2
No. 10s-2 ply soft yarn.....	16 @ —
No. 8s-2 ply hard.....	15 1/2 @ 15 1/2
No. 10s-2 ply hard.....	16 @ —
No. 12s-2 ply hard.....	16 @ —
No. 14s-2 ply.....	16 @ —
No. 16s-2 ply.....	16 @ 16 1/2
No. 20s-2 ply.....	16 1/2 @ 17
No. 21s-2 ply.....	17 1/2 @ 18
No. 26s-2 ply.....	18 @ —
No. 30s-2 ply yarn.....	18 @ 18 1/2
No. 40s-2 ply.....	22 1/2 @ 23
No. 8s-3, 4 and 5 ply.....	15 1/2 @ —
No. 20s-2 ply chain warps.....	17 1/2 @ —
No. 21s-2 ply chain warps.....	18 @ —
No. 26s-2 ply chain warps.....	18 1/2 @ —
No. 30s-2 ply chain warps.....	18 1/2 @ —
No. 16s-3 ply hard twist.....	16 @ 16 1/2
No. 20s-3 ply hard twist.....	17 @ —
No. 26s-3 ply hard twist.....	18 @ —

Prices nominal; market at a standstill.

It is announced that a company capitalized at \$1,500,000, called the New Anchor Line Steamboat Co., has been organized in Chicago to operate a line of steamboats between New Orleans and St. Louis, and that three vessels for it will be constructed immediately.

The Peacock Iron Works of Selma, Ala., have been awarded the contract by the United States government for several thousand side-dump cars to be used in the construction of the Panama canal.

RAILROADS

[A complete record of all new railroad building in the South will be found in the Construction Department.]

NEW ORLEANS TERMINAL.

Much Progress on the Frisco System and Southern Railway Depot Plans.

President L. S. Berg of the New Orleans Terminal Company, is reported as saying that the depot which it will erect in New Orleans for the joint use of the Frisco system and the Southern Railway will be much finer than was at first proposed, and that it will cost considerably more than is required by the city ordinance. Plans are now being prepared for the structure, and Mr. J. F. Hinckley, chief engineer of construction of the Frisco system, who has charge of the terminal construction, is quoted as expressing the opinion that all arrangements could be made for beginning work on the depot by October 1.

This new depot, which will be at the corner of Canal and Basin streets, in the heart of the city, will be 80 feet wide and 200 feet deep. The waiting-room will be 40x80 feet, and will have a ceiling 50 feet high. There will be a corridor 30 feet wide from the waiting-room to the train shed, which will be 80 feet wide and 720 feet long, with four tracks. Tracklaying to the site of the new depot has progressed as far as Claiborne avenue, coming into the city along St. Louis street and the up-town site of the Carondelet canal. A yard will be constructed between St. Louis and Conti streets and extending from Genois to Bernadotte streets, a distance of about 14 blocks. It will contain 31 miles of tracks. The roundhouse, with stalls for 14 engines, will be there, as will the shops, water tanks and other operating buildings.

On the blocks bounded by St. Louis street and Carondelet canal, Basin street and Broad street will be the city yards of the company, with 16 commodious freight sheds from 250 to 950 feet long. They will be built of brick and iron. An electric-light and power plant will also be built by the company on the block bounded by St. Louis, Toulouse, Basin and Franklin streets. There will be double tracks as far as the connections with the Illinois Central and the New Orleans & Northeastern railroads, and a double-track electric lift bridge will be erected over the New Basin canal.

The improvements projected at the Chalmette terminals include one slip 1400 feet long and 250 feet wide, with a depth of 30 feet at low water. This work is to begin immediately, and will cost about \$600,000. Eventually there will be six slips at Chalmette. A grain elevator of 1,000,000 bushels capacity is also to be erected there.

The George B. Swift Co. has the contract for all the freight buildings, the roundhouse, the coal elevator and the turntable, while the T. A. Kearns Co. has the contract for all the pile-driving and bridge work, and the Hedges-Gosney Construction Co. has the concrete and masonry. The grading and tracklaying are being done by the company.

The entire work will, it is expected, be completed early in 1905.

CENTRAL OF GEORGIA.

Ninth Annual Report of the System Makes a Gratifying Display.

The annual report of the Central of Georgia Railway Co. for the year ended June 30, 1904, makes a gratifying showing of the road's affairs, the gross earnings having increased largely, while the growth of business was handled without

a proportionate increase in expenses, the rise in the latter being comparatively small. The figures are as follows: Gross earnings \$9,396,931, increase as compared with the next preceding fiscal year \$232,460; operating expenses \$6,864,508, increase \$41,776; net earnings \$2,532,422, increase \$190,684; total income \$2,753,083, increase \$218,931; net income after the payment of interest on equipment trust, funded debt, rentals, taxes, etc., \$338,466, increase \$134,960. The profit and loss account shows that the credit balance at the end of the last fiscal year was \$206,179, but this year it is \$342,078.

The system now consists of 1878 miles operated. A line about nine and one-half miles long from Lyerly, Ga., to Toles Hollow, Ala., has been acquired, and the Chattoohoochee & Gulf Railroad has been extended from Sellersville to Lockhart, Ala., nearly 24 miles. About 36 miles of sidings were built. Much new rail was laid, 9654 tons being put in the tract and 6000 tons additional being ordered.

At Savannah the cotton sheds, costing \$12,323, were completed, and extensive improvements at Berth 4, with dredging along the river-front, will be finished in time for this autumn's business. This latter, according to estimate, will cost about \$20,000. A number of minor buildings and improvements at various points on the lines were completed.

To the equipment 30 locomotives were added, there being five passenger engines, seven switching engines and 18 freight engines in the lot. At the company's shops 200 box cars and 800 coal cars of 80,000 pounds capacity were built. Three mail and express and three baggage cars were also built there. Three sleepers and six passenger cars were bought.

There were 116 new industries, employing 3980 hands, and with \$4,814,500 capital, covering 23 different classes of business, established on the lines of the company during the year. There were also 2,316,281 peach trees planted, and an increase of 249,730 peach trees coming into bearing.

The new ships, the City of Columbus and the City of Atlanta, have been completed and put in service by the Ocean Steamship Co. The deferred payments on these vessels are covered by the steamship bonds of the railway company, endorsed by the steamship company and amounting to \$966,000 at 5 per cent.

The official roster of the Central of Georgia includes J. F. Hanson, president; Alexander R. Lawton, first vice-president; W. A. Winburn, second vice-president; C. C. Williams, secretary; T. M. Cunningham, treasurer; T. S. Moise, general superintendent, and H. M. Steele, chief engineer.

GUADALUPE VALLEY LINE.

Plan to Build an Electric Road From New Braunfels to Gonzales.

The Athens Loan Agency, Athens, Texas, which is reported to be interested in a plan to build an electric railroad from New Braunfels to Gonzales, writes the Manufacturers' Record that the proposed road will begin at New Braunfels, Comal county, Texas, on the Missouri, Kansas & Texas Railway, and will follow the Guadalupe valley to Seguin, Texas, where it will cross the Southern Pacific line, and after bridging the river will proceed down the valley to the Wells plantation of 15,000 acres, and will go thence to Gonzales, connecting there with the San Antonio & Aransas Pass Railroad.

"This route," continues the letter, "is down the famous Guadalupe valley. It is thickly settled and contains some of the finest black and black sandy farms in Texas. It is 15 miles from New Braunfels to Seguin, 12 miles from Seguin to the

Wells plantation, and 18 miles thence to Gonzales, 45 miles in all. The entire length is through a beautiful, rich and thickly-populated region. Its resources are inexhaustible, and there are superb water-powers at various points on the route. The Wells plantation is one of the finest properties in Texas, and will be formed into a stock company and colonized. About \$150,000 has been subscribed in stock for the road and about \$80,000 for the land company by local capital. The balance has been promised from Chicago. No bids on construction nor material are desired.

"We can also report one of the largest saw-mill companies of Texas, owning between 75,000 and 100,000 acres of virgin long-leaf pine; 45 miles of railroad, engines, cars, etc.; three fine modern saw-mill plants, 15,000,000 feet of lumber cut in yards, and their experts estimate over 800,000,000 feet of lumber yet standing. They are seeking more capital, and will make vast improvements as soon as secured, and will be in the market later for railroad and saw-mill supplies some months hence. We are the exclusive agents for the negotiations for capital and material for them in this deal."

A ROCK ISLAND CHANGE.

Mr. E. H. Woodman Appointed General Advertising Agent.

A change of heads has occurred in the advertising department of the Chicago, Rock Island & Pacific Railroad Co., by which Mr. Edward Howard Woodman succeeds Mr. J. M. Campbell, with the title of general advertising agent. Mr. Campbell, it is stated, goes to Cincinnati as advertising manager for Proctor & Gamble. Mr. Woodman has had broad training for the new position he has assumed, having been connected with the publicity department of three of the great Western railroads for a period extending over 17 years, and having been chief clerk of the Rock Island advertising department since January, 1903. His first work in this line was with the Santa Fe Railroad at Los Angeles, where he remained for 10 years prior to 1897. In that year he went with the Southern Pacific, with headquarters in San Francisco, and it was he who founded in May, 1898, the very successful Sunset Magazine, of which he was editor until he returned to the Santa Fe as chief clerk in the advertising department, Chicago, in September, 1900. This position he held till he was secured by the Rock Island, a year ago last January. With such training and so broad a knowledge of his subject and the territory of the Rock Island it is a foregone conclusion that Mr. Woodman's selection will prove in every way advantageous to the interests of this very important branch of Passenger Traffic Manager Sebastian's department.

Active Development Work.

That the St. Louis, Brownsville & Mexico Railway Co. intends making an energetic campaign for the development of the territory it covers is evidenced in a conclusive way by the men which this company is gathering around it for its chief executive officers.

Following the appointment of Mr. Jeff N. Miller as vice-president and general manager, which occurred last spring, announcement is made of the selection of Mr. William Doherty to be general passenger and ticket agent of the railroad.

Both Mr. Miller and Mr. Doherty have had extensive experience with Texas railroad operations as officials of the Houston & Texas Central and the Houston, East & West Texas lines, and

have made enviable records for themselves in the work they have done for the territory through which those railroads run.

Early recognition was given by Mr. Doherty of the truck and fruit-growing possibilities of East Texas, and the work he did in inducing immigration and stimulating the development of fruit and truck-raising gives him distinction among those who helped their railroads by doing the greatest conceivable amount of good to the country through which they run. The territory of the St. Louis, Brownsville & Mexico Railway offers a very fruitful and attractive field for the efforts which Mr. Doherty has so successfully made elsewhere, and it is easy to predict that a very active development will speedily be inaugurated all along that line.

B. & O. Earnings for July.

The Baltimore & Ohio Railroad's gross earnings from traffic during July were \$5,274,542, a decrease of \$589,925; the expenses decreased \$116,610, leaving a net decrease of \$473,308. The net earnings from traffic were \$1,848,885, the largest of any month since last October, and show a fraction over 6 per cent. as having been earned on the common stock, according to figures obtained from an official source. The net earnings would have been very materially increased but for the fact that the management is continuing reasonably heavy expenditures in the line of permanent improvements, which it was deemed wise to complete before cold weather, in order to expedite the handling of an expected increase in traffic this fall. Maintenance expenses were increased, it being the policy to put the track up to a high standard and keep it there. Material decreases were effected in conducting transportation and motive-power expenditures.

An analysis of the revenue shows that 75 per cent. of the decrease is chargeable to the condition of the iron and steel business. Coke shipments were lighter, but the coal tonnage increased. Passenger traffic contributed \$1,379,638 in revenue, an increase of \$60,476. Last year immigration was exceedingly heavy from Baltimore, and this loss was more than overcome, although a great portion of the increase cannot be directly credited to St. Louis business.

Delta Southern Railroad.

Mr. W. W. Stone writes from Greenville, Miss., to the Manufacturers' Record about the proposed Delta Southern Railroad as follows:

"A charter has been granted to construct a railroad with Kuhn, on Bayou Pholia, in Bolivar county, and Campbellsville, on the lower Sunflower river, in Yazoo county, as termini. Most or all of the territory is new and of the best in this famous delta country. The Percy branch of the Southern Railway will constitute a part of the road—Leland to Percy, on Deer creek, in Washington county. Bids are asked for to construct from Elizabeth (crossing of the Southern Railway and the Yazoo & Mississippi Valley Railroad, 12 miles east of Greenville) 10 miles north, same to be completed in 90 days from letting.

"This railroad is a long-felt want, and promotes the development of a magnificent region heretofore inaccessible for want of transportation. It will be built under the auspices of the Delta Southern Railroad Co., domicile, Greenville, Miss.; incorporators, D. S. McMullin, Chicago, Ill.; Joshua Skinner and W. W. Stone, local, Washington county, Mississippi, and others."

Arkansas Traction Co.

Eugene Sheridan, 17 Broadway, New York, sends the Manufacturers' Record the following:

"The Arkansas Traction Co. (electric railway to run from Harrison to Dodd City, Ark., about 30 miles) has matters

now in shape, and the president, Thomas Helm, Harrison, Ark., would like to have propositions from financial people, construction companies or railroad contractors to finance and build it. Ten miles, from Dodd City to Zinc, could be constructed if desired. The choice zinc lands donated by the citizens are extensive, and terminals, etc., are offered free.

"The Harrison Light & Ice Co. became a part of this company, and its earnings alone will pay about 1½ per cent. on a 5 per cent. \$500,000 bond issue.

"This road will run through a rich mineral district, and the necessity for it can be readily seen when it is known that it costs about \$7 to haul a ton to the railway, while the traction company can carry it at good profit at \$1 per ton. On the line of the road there are 400 proven mineral properties, and the tonnage is likely to be enormous. It certainly ought to interest financiers and railway builders."

Western Maryland Progress.

The Western Maryland Railroad Co. expects to have its extension to tidewater at Baltimore (the Fort Covington terminals) opened for traffic on September 20. The large bridge over the Patapsco river and the freight and coal piers are being completed as rapidly as possible, with every prospect of being finished in time.

Good progress is also being made on the construction of the extension from Cherry Run to Cumberland. The headings are cut through in the Welton and Stick Pile tunnels, the former 730 feet and the latter 1670 feet long. The longest tunnel on the route is the Indigo tunnel, 4330 feet long, while Knobley, near Cumberland, is about 1300 feet long. The Kessler tunnel is also one of the shorter bores. In Knobley tunnel about 1000 feet have been cut, work being pushed from both ends. Some of the cuttings on the line are very heavy, and will require months yet to finish.

Louisville & Nashville Bonds.

Messrs. J. P. Morgan & Co., New York city, are offering for sale at 95 and accrued interest an unsold balance of the issue of Louisville & Nashville collateral 4 per cent. 50-year bonds of the Atlantic Coast Line Railroad Co., the total issue being \$35,000,000. These bonds may be purchased either registered or with coupons, and either after purchase may be exchanged for the other. The principal is payable October 1, 1952, and the interest on May 1 and November 1 of each year. Any or all of the issue may be redeemed at 105 and interest upon two months' notice in any year. The bonds are a direct obligation of the Atlantic Coast Line Railroad Co., and further particulars concerning them will be found in an advertisement appearing in another column.

Georgia Southern & Florida Report.

The income account of the Georgia Southern & Florida Railway for the fiscal year ended June 30, 1904, shows: Miles operated 395, increase as compared with the next preceding year 36.67 miles; gross earnings \$1,603,540, increase \$58,349; operating expenses and taxes \$1,278,464, increase \$44,062; net earnings from operation \$415,076, increase \$14,287; total income \$131,414, increase \$15,833; balance after paying fixed charges, etc., \$143,885, decrease \$11,012. After paying dividends of 5 per cent. on the first preferred stock and of 4 per cent. on the second preferred stock there was left a balance of \$86,325 to be carried to the credit of profit and loss.

Robstown to Bay City.

Mr. Frank P. Read, superintendent, with Johnston Bros., general railroad construction contractors, Corpus Christi,

Texas, writes the Manufacturers' Record about the proposed extension of the St. Louis, Brownsville & Mexico Railway from Robstown to Bay City as follows:

"We have closed contract for the construction of said extension, an approximate distance of 142 miles. The subcontract for grading has been let to Messrs. Johnston & Read, tracklaying, bridges and buildings to the McCabe & Steen Construction Co., masonry to the Hedges-Gosney Construction Co., with headquarters at Corpus Christi. Construction is to commence at once. The chief engineer in charge is Mr. F. G. Jonah, with headquarters at Corpus Christi."

Marion & Rye Valley Bought.

The United States Spruce Lumber Co. writes from Marion, Va., to the Manufacturers' Record as follows: "We have purchased the Marion & Rye Valley Railway and will be in the market for 50 to 60 log cars, each 36 to 40 feet long, with air brakes and capacity of 50,000 to 60,000 pounds. Would also purchase a good second-hand 50 or 60-ton Lima or Heisler locomotive. Would not want it unless in good shape."

The Marion & Rye Valley line extends from Marion, Va., via Currin Valley to Sugar Grove, 18 miles. The officers are G. W. Miles, president and general manager; W. B. Jackson, secretary; H. B. Jeffrey, treasurer and auditor, and V. M. Miles, superintendent.

The Pere Marquette Merger.

Financial arrangements are reported in progress to fulfill the plans for merging the Pere Marquette Railroad, the Cincinnati, Hamilton & Dayton Railroad and the Chicago, Cincinnati & Louisville Railroad, control of which was purchased not long ago by a syndicate. As a result of this deal Mr. Russell Harding, vice-president and general manager of the Missouri Pacific system, has been elected president of the Pere Marquette system. When these three roads are united, according to the plans of their financial backers, there will be formed a system with 3452 miles of track. The Pere Marquette has now 2165 miles, the Cincinnati, Hamilton & Dayton has 1033 miles and the Chicago, Cincinnati & Louisville has 254 miles of line.

Peach River Railroad.

Mr. W. S. Delery of W. S. Delery & Co., civil engineers and general contractors, Houston, Texas, writes the Manufacturers' Record relative to the construction of the Peach River Railroad as follows:

"This is a short lumber line connecting the Gulf, Colorado & Santa Fe Railway and the Houston, East & West Texas Railway. The present line is six miles long, and the line to be constructed is four miles, and will be built from Timber Station, on the Gulf, Colorado & Santa Fe Railway to the Midline, on the Houston, East & West Texas Railway. The territory traversed is pine timber country. The chief engineer is R. W. Luttrell of Galveston, Texas."

Franklin & Abbeville.

Concerning the report that the company would build a 20-mile extension, Mr. Jules Godchaux, general manager of the Franklin & Abbeville Railway, writes from New Orleans to the Manufacturers' Record that the extension will not be started until the first of the coming year. "The new rails," says he, "will be laid from our present junction with the Morgan's Louisiana & Texas Railroad to Bayou Vermillion, or Hunter's canal, at Milton postoffice. Ultimately we expect to continue our line and meet the Morgan's Louisiana & Texas Railroad at some point between Lake Charles and Lafayette."

B. & O.'s New Refrigerator Cars.

Mr. O. C. Cromwell, mechanical engineer of the Baltimore & Ohio Railroad, informs the Manufacturers' Record concerning the 250 refrigerator cars ordered from the South Baltimore Steel Car & Foundry Co., as follows: They are to be of 70,000-pounds capacity each, with lateral motion trucks and tandem spring-draft gear. They are to be 40 feet long over end sills, and 40 feet 4½ inches over body, 38 feet 11½ inches inside. They are to be 9 feet wide over frame and 9 feet 4½ inches wide over body, and 8 feet 3 inches wide inside. The height from floor to the ceiling will be 7 feet 6 inches.

Atlanta to Coal City.

The Atlanta & Birmingham Air Line Railway (Seaboard system) announces the opening for freight traffic on August 28 of its extension between Atlanta and Rockmart, Ga., 47 miles. This makes the line now open from Atlanta, Ga., to Coal City, Ala., 128 miles, with an eight-mile branch to Pell City, Ala., and a four-mile branch to Jacksonville, Ala. President J. M. Barr is reported as saying that construction work between Coal City and Birmingham is progressing satisfactorily, and that through trains will be running to Birmingham by January 1, perhaps earlier.

Atlantic Coast Line Report.

The report of the Atlantic Coast Line Railroad for the fiscal year ended June 30 shows gross earnings \$20,544,975, increase \$862,519; expenses \$12,110,464, increase \$200,127; net earnings \$8,434,511, increase \$662,392; total income \$10,537,908, increase \$1,612,927; charges \$5,408,644, increase \$532,197; surplus \$5,129,354, increase \$1,080,730; interest on certificates of indebtedness and preferred dividends \$943,960, decrease \$205,711; surplus \$4,185,394, increase \$1,286,441.

Farmville & Powhatan Not Sold.

Concerning the press report that the Farmville & Powhatan Railroad had been purchased in the interest of the proposed Tidewater Railway, Mr. T. M. R. Talcott, receiver of the Farmville & Powhatan, writes the Manufacturers' Record: "We have no knowledge of any transaction in the securities of the Farmville & Powhatan Railroad, whereby the control of a majority of them may have been secured by any company or individual. The court has not yet ordered a sale of the property."

Railroad Notes.

The New Orleans & Northeastern Railroad is to receive the 250 freight cars recently ordered in time for moving the cotton crop.

The new double-track steel bridge of the Washington Southern Railway across the Potomac river at Washington, D. C., has been completed.

The Baltimore & Ohio Railroad Co. has, it is reported, awarded a contract to the Standard Steel Car Co. of Butler, Pa., for 1000 gondola cars.

According to a report from the City of Mexico, Thomas Milan, the newly-elected president of the Vera Cruz & Pacific Railway, proposes to do considerable work improving the line. Portions of the road which are now subject to flood in the rainy season are to be raised.

President William Moncure of the New Hope Valley Railway writes from Raleigh, N. C., to the Manufacturers' Record concerning the construction of its proposed line: "Three miles have been let to Ferrel & Noe of Pittsboro, N. C., and will be completed about November 1,

1904. Other work will be let in September."

The Belton-Temple Traction Co. is reported to be making rapid progress on the construction of its line between those two towns in Texas, a distance of about 12 miles. The power-house is at Midway, equidistant from the termini, and the heavy machinery has been placed in position. Track has been laid from Temple to the power-house. Possibly the line will be ready to operate by October 1.

The Baltimore & Ohio Railroad has issued a notice that the position of division agent would be abolished on September 1. It was created during heavy business years, with the expectation that agents' duties and work could be simplified and lessened by proper inspection. The results having been attained in a measure, the company decided as a matter of economy that the traveling auditors could carry on the work without detriment to the service.

Galveston Seawall Extension.

J. M. O'Rourke & Co., who built the county seawall at Galveston, will be given a contract at \$259,825 for building the government extension of the seawall for a distance of 4910 feet. The construction will call for about 167,000 lineal feet of round piling, 1,105,000 feet of sheet piling, 200,000 pounds of reinforcing and anchor rods, 100 lineal feet of vitrified pipe, 28,500 cubic yards of concrete and 15,000 tons of rip-rap.

Lumber Notes.

It is estimated that of the \$1,000,000,000 worth of cypress timber standing in Louisiana, \$750,000,000 worth is controlled by about 20 persons.

A representative of the Denver, Northwestern & Pacific Railroad, which is being constructed from Denver to Salt Lake, has been in Texas buying ties for the road.

Chattanooga mill men are complaining that the best grades of timber, especially in oak and poplar, are becoming scarce and that the supply consists chiefly of the smaller logs. The local mills handled this year about 15,000,000 feet of timber, of which about 7,000,000 feet was oak and 4,000,000 feet poplar.

The fourteenth annual report of the Commercial and Industrial Association of Montgomery, Ala., recently published in pamphlet form, shows that during the past year 19 new business houses have been established in the city, and that improvements have been made in the telegraph and railroad service of the city. Ten manufacturing enterprises have either begun active operations or become assured.

"Rice—Its Use, Cultivation and Food Qualities—the Past, Present and Future of the Industry in the United States and Foreign Countries," is the title of an attractively illustrated pamphlet issued by the American Rice Cereal Co. of Kansas City, Mo., and San Antonio, Texas.

The sales in the Joplin (Mo.) district for the seven months ended July 31 were 307,333,230 pounds of zinc ore and 38,363,460 pounds of lead ore, valued in all at \$6,126,595.

A Winston-Salem (N. C.) tobacco-manufacturing company shipped last week to Southern points a solid train of 29 cars of plug tobacco, aggregating \$80,000 pounds.

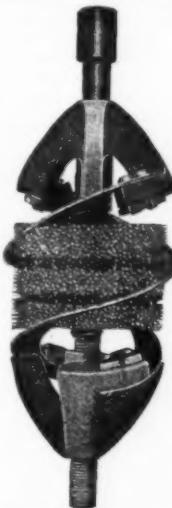
The rod mill at Easley of the Alabama Steel & Wire Co. shipped last week a large order of steel wire to Porto Rico.

A cargo of 7301 sacks of rice arrived at New Orleans last week from points between that city and Bayou Sara.

MECHANICAL

Gem Spiral Flue Scraper.

In order to cater to the wants of all users of tubular boilers of all types, it is necessary that a manufacturer be prepared to offer more than one design of flue scraper. In meeting this demand the Gem Manufacturing Co., Spruce, near



GEM SPIRAL FLUE SCRAPER.

33d streets, Pittsburg, Pa., has devised and made the Gem Brush Spiral Flue Scraper, shown by the accompanying illustration. This scraper is arranged with springs in the center of the brush, so that it will give slightly when especial strain is put on it, thus allowing it to ride over rough places in the tube, and at the same time be stiff enough to effectively remove the soot, etc. Its form is such that as it is pushed through the tube it expands, thus fitting closely, and when effort is made to withdraw the tool it elongates sufficiently to release itself and be drawn from the tube.

This device has met with much success.

Telpherage System at Milton, Mass.

One of the principal ways of facilitating economical operation in manufacturing plants is the proper handling of materials. This is exemplified in the telpherage system illustrated herewith and recently installed at Milton, near Boston, Mass., by the Walter Baker Chocolate Co. This plant was designed, installed and put in successful operation by the United Telpherage Co., 20 Broad street, New York, and it is peculiarly interesting on account of the engineering difficulties which were presented, although the United Telpherage Co. has many plants in operation—nearly 75 in the Eastern States alone. The Baker plant conveys the cocoa beans and other material from the railroad storehouse to the mill. The former method was to truck this raw stock by a number of teams around the works by a circuitous route for a long distance and then carry it up on elevators to the third floor of the mill. The present method is by the telpherage system.

This system was designed and installed to take the loads directly from the top floor of the storehouse and convey them by the shortest possible route to the third floor of the mill, where the manufacture of cocoa and chocolate is commenced, so as to reduce the cost of transportation of the raw stock to a minimum.

This route presented the most difficult conditions for the construction of the overhead track, but space was annihilated and the distance between the buildings reduced to the minimum. The only piece of level ground that the track follows is for 60' beyond the storehouse. It then turns a 90° curve of 40' radius and passes along the side of a rocky precipitous cliff,

at the foot of which is a swift-running river. Another 90° curve of 20' radius is then made after passing over the roof of a building on the rocky ledge of the river bank, and then the track is carried across the river 50' above it on a steel bridge, erected under the most difficult conditions, into the third floor of the new mill.

On the level ground this portion of the track is supported by A bents 35' above the ground, resting on concrete founda-

rely up from the water, is 80'. This distance was spanned by a heavy steel bridge, which carries the track between it, the track itself being 50' above the river. The whole structure is heavy, solid and well braced, and all the timber is the best grade of Georgia pine.

The track is nowhere less than 30' from the ground, and nearly everywhere is from 40' to 50' above the ground or river, and is entirely free from being blocked by

The telpher, or electric locomotive in this case, runs on the top of the single overhead rail, and is controlled by an operator seated in an enclosed cab, which is suspended from the terpher directly underneath the track. The operator has his controller, which is exactly like an ordinary trolley-car controller, at one hand, and at the other hand is a powerful brake wheel, which applies the brakes simultaneously to the telpher and all the trailers which carry the trucks so suspended beneath them, so the whole train can be stopped within its own length. Current is supplied to the telpher through the trolley wires, being taken off by a trolley pole. The train is 30' long, and the average speed is at the rate of about 700' per minute. The weight of the machine is 4600 pounds, and with the three loaded trucks the total moving load on the structure is 12,000 pounds suspended 50' in the air along the rocky cliff and over the water.

Thus the trucking over a long circuitous route by many teams is done away with, and one telpher man at \$2 per day does alone what many men and horses have heretofore accomplished.

It is stated that the cost of the power consumed by the telpher in running back and forth for 10 hours a day does not amount to \$1 for the day's work.

Cotton-Growers to Meet.

It is expected that between 1200 and 1500 delegates will attend the convention of Southern cotton-growers in the Agricultural Building of the St. Louis World's Fair September 26. Addresses of welcome will be made by ex-Governor David R. Francis, president of the exposition; Frederic W. Taylor, chief of the Agricultural Section, to which T. B. Parker of Raleigh, N. C., will respond. President Harvie Jordan of Monticello, Ga., of the Southern Cotton-Growers' Protective Association, will make his annual address, and there will be a general discussion on the marketing of the cotton crop by the producers. Formal addresses are announced by Col. S. F. B. Morse of New York city, on "The Southern Cotton Corporation;" by Eugene Williams of Waco, Texas, on "The Best System of Warehousing Cotton;" by Richard H. Edmonds of Baltimore, Md., on "Better Facilities Needed in Handling Cotton;" by E. C. Peters of Calvert, Texas, on "Slow Movement of the Cotton Crop by the Producers Essential to Insure Good Prices," and by Edward K. Sumerwell of New York city, on "Warehousing Cotton in the Interior at Local Points."

Money for Crops.

About a month ago the comptroller of the currency sent to the national bank examiners, excepting in New England and in New York city, a letter of inquiry concerning the preparedness of the banks to provide money for moving crops this year. Nearly all the examiners addressed have replied, showing that generally the demand will be about the same as last year excepting that in Alabama, Florida and Georgia, as well as in Ohio, Minnesota and Wisconsin, it will be greater and two or three weeks earlier. In Missouri and Indiana it will be less and a little later. Among the States in which the banks are better prepared to meet the demands of the crop movement are Kentucky, Maryland, Texas, Tennessee, Virginia and West Virginia. There will be about the same amount of money borrowed by the banks as last year, but there will be some increase in Alabama, Arkansas, Florida, Georgia, Indian Territory, Louisiana, Missouri and Oklahoma, in addition to several other States outside of the South.

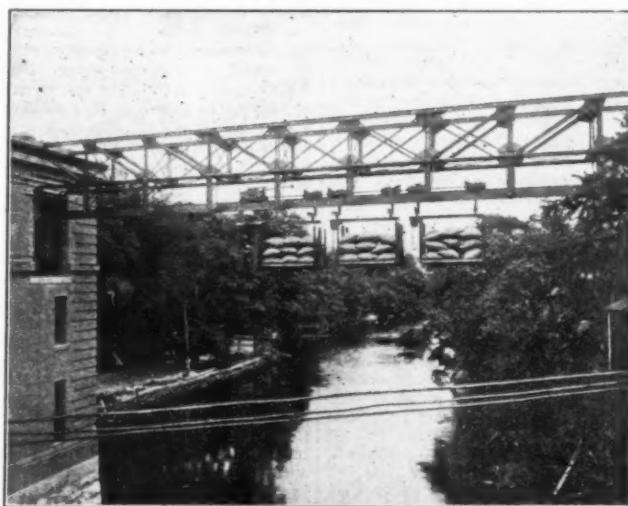


DIFFICULT TELPHERAGE ENGINEERING. LINE BUILT UPON A SIDE OF CLIFF HALFWAY DOWN—50 FEET ABOVE GROUND—LOADED TRAIN APPROACHING.

tions. Along the rocky cliff the supports consist of huge vertical posts of Georgia pine 14" square varying in length from 30' to 40'. The foundations of these posts are cut out of the slanting side of the solid rock, and they are braced by heavy timbers in the shape of a figure 4; also anchored back in the solid rock. When one considers that the weight of one of these single posts is over a ton and a-half alone, and the length is 40', then the difficulty of carrying them along the

snow in winter, which is such a serious impediment to teams or surface transportation.

The bags of cocoa, weighing about 300 pounds each, are loaded on trucks in the storehouse. Each truck has a capacity for 2000 pounds. The loaded trucks are pushed underneath the machine and hooks attached. The operator raises the trucks several inches clear of the floor, starts the telpher with its load of three trucks of 2000 pounds each, and in three-quarters



SIDE VIEW OF TELPHER TRAILERS AND THREE LOADED TRUCKS. CAPACITY ONE TON PER MINUTE IN EITHER DIRECTION; TWO TONS, IF LOADS ARE CARRIED IN BOTH DIRECTIONS.

side of the precipice and standing them up on end can be somewhat appreciated.

A building is then spanned and the track carried about 15' over its roof without molesting the building in any way. On the slanting rock of the river bank the foundation piers for the tower which supports one end of the steel bridge were built up, using many tons of concrete. The top of this tower is 55' above the water, and the distance between the tower and the wall of the mill, which rises di-

of a minute has passed by the precipitous cliff and across the river and has landed its load of 6000 pounds (three tons) of cocoa beans on the third floor of the mill. The three loaded trucks are unhooked from the machine and pushed out of the way and three empty ones are hooked on in their place in less than a minute's time and the operation is on its way back to the storehouse, where three more loaded trucks are awaiting him. The round trip has not taken three minutes.

Construction Department

TO OUR READERS!

In order to understand and follow up properly the Construction Department items, please bear in mind the following statements:

EXPLANATORY.

The MANUFACTURERS' RECORD seeks to verify every item reported in its Construction Department by a full investigation and complete correspondence with everyone interested. But it is often impossible to do this before the item must be printed, or else lose its value as news. In such cases the statements are always made as "rumored" or "reported," and not as positive items of news. If our readers will note these points they will see the necessity of the discrimination, and they will avoid accepting as a certainty matters that we explicitly state are "reports" or "rumors" only. We are always glad to have our attention called to any errors that may occur.

Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery, Proposals and Supplies Wanted."

In correspondence relating to matters reported in this paper, it will be of advantage to all concerned if it is stated that the information was gained from the MANUFACTURERS' RECORD.

ADDRESS FULLY.

To insure prompt delivery of communications about items reported in these columns, the name of one or more incorporators or a newly incorporated enterprise should be shown on the letter addressed to that town, or to the town of the individual sought, as may be shown in the item, as sometimes a communication merely addressed in the corporate or official name of a newly established company or enterprise cannot be delivered by the postmaster. This will help to insure prompt delivery of your communication, although it is inevitable that some failures on the part of the postal authorities to deliver mail to new concerns will occur.

WRITE DIRECTLY.

It is suggested to advertisers and readers that in communicating with individuals and firms reported in these columns, a letter written specifically about the matter reported is likely to receive quicker and surer attention than a mere circular.

BALTIMORE BUILDING NOTES.

Business Buildings.

Baltimore—Bank Building.—It is reported that the National Mechanics' Bank has awarded contract to Henry Smith & Sons Co., builder, 116 South Regester street, for the construction of its bank building to be located at northwest corner of South and German streets, after plans and specifications by Taylor & Knowles, architects, 11½ East Pleasant street. Structure to be one story high with basement and subbasement, 47.9x97.4 feet; white marble exterior with granite base; concrete foundation; terra-cotta partitions; marble flooring and wainscots; steel beams and girders; reinforced concrete floors and columns; copper roofing; copper skylight glazed with wireglass and ornamental leaded glass; fireproof construction throughout; fireproof vault; bronze doors; revolving doors; metal window guards; metal filing cabinets; perforated plaster ceiling; electric wiring and fixtures; sanitary plumbing; steam-heating system. This building previously mentioned.

Baltimore—Office Building.—George Gunther, 2102 East Baltimore street, has awarded contract to Henry Smith & Sons Co., builder, 116 South Regester street, for the construction of his office building to be located at northwest corner of St. Paul and Fayette streets, after plans and specifications by Simonson & Pietsch, architects, Hoen Building, Lexington and North streets. Structure to be eight stories high with basement, 30x88.6 feet; buff brick with granite base and terra-cotta trimmings; Bedford limestone to second story; concrete foundation; steel beams and girders; cast-iron columns; slate roofing; ash lifts; bronze thresholds; fireproof safes; pavement lights; galvanized-iron skylight glazed with wireglass; Terrazzo floors; marble wainscots; metal frames and sashes; electric wiring and fixtures; sanitary plumbing; steam-heating system; power elevator. Heating system, elevator and electrical work not included in contract. This building previously mentioned.

Baltimore—Bank Building.—Further details have been obtained concerning the bank building for the National Exchange Bank, 525 West Baltimore street, to be erected on Hopkins Place, German and Liberty streets, after plans and specifications by Taylor & Knowles, architects, 11½ East Pleasant street. Structure to be one story high with basement; Roman brick with granite base and columns; terra-cotta trimmings; concrete foundation; copper cornices and balustrade; iron and copper frames and sashes glazed with wireglass; copper skylight glazed with wire and leaded glass; fireproof vaults; interior finish in marble and Caen stone; bronze banking screen on marble base; fireproof construction throughout; electric wiring and fixtures; sanitary plumbing; steam-heating system. James Stewart & Co., 319 North Charles street; A. R. Whiting & Co., 125 Broadway, New York; D. C. Weeks & Son, 9 East Centre street; Henry Smith & Sons Co., 116 South Regester street; John Hiltz, 3 Clay street, and Henry S. Rippey, 7 Clay street, have been selected to furnish estimates on construction. Plans and specifications will be distributed on August 30.

Baltimore—Store Building.—Further details have been obtained concerning store building for the Henry V. Ward estate, Henry V. Ward, trustee, Park avenue and Centre street, to be erected on northeast corner of Baltimore and Charles streets, after plans and specifications by Parker & Thomas, architects, 612 North Calvert street. Structure to be four stories high with basement, 70.9x114.7 feet; brick with granite base; concrete foundation; terra-cotta trimmings; steel beams and girders; cast-iron columns; slate roofing; galvanized-iron skylight glazed with wireglass; vault lights; metal ceilings; cast-iron grillwork; galvanized-iron cornice; vault doors; fire-escape; electric wiring and fixtures; sanitary plumbing; steam-heating system; three power elevators. Electrical work, heating system and elevators not included in contract. Murphy Construction Co., 202 West Fayette street; Wells Bros. Co., 314 North Charles street, and Burnham & Wells, Builders' Exchange Building, 2 East Lexington street, are among those selected to bid on the construction. Bids to be in about September 6.

Baltimore—Store Building.—Further details have been obtained concerning store building for the Albert estate to be erected on Hanover street, near Fayette street, after plans and specifications by Jackson C. Gott, architect, 218 North Charles street. Structure to be two stories high with basement, 11.2x51.4 feet; brick with granite base and Kilbstone trimmings; concrete foundation; steel beams; cast-iron columns; slate roofing; galvanized-iron cornice; vault lights; electric wiring and fixtures; sanitary plumbing; steam-heating system. J. H. Miller, 110 Dover street; Edward D. Preston, Builders' Exchange Building, 2 East Lexington street, and Edward Brady & Son, 1109 Cathedral street, have been selected to bid on the construction. Bids to be in September 1.

Baltimore—Warehouse.—The Board of Trustees of the Sheppard and Enoch Pratt Hospital, 317 North Charles street, will erect warehouse to be located at 106 South street, after plans and specifications by Charles E. Cassell & Son, architects, 411 North Charles street. Structure to be four stories high, 28.4x136 feet; brick with terra-cotta trimmings; concrete foundation; steel beams; slate roofing; galvanized-iron cornice; electric wiring and fixtures; sanitary plumbing; power elevator. John A. Sheridan Co., 321 North Holliday street; James Worthington, 120 North Calhoun street; Cramp & Co., 107 St. Paul street, and John Cowan, 106 W. Madison street, have been selected to bid on the construction. Bids to be in September 2.

Baltimore—Lunch Room.—The Crown Lunch Room, George W. Hyde, proprietor, 221 West Lexington street, has awarded contract to William Ferguson & Bro., builders, 214 Clay street, for the construction of lunch room to be located at 225 East Baltimore street, after plans and specifications by Chas. M. Anderson, architect, 333 North Charles street. Structure to be four stories high with basement; brick with ornamental terra-cotta trimmings; concrete foundation; steel beams; cast-iron columns; electric wiring and fixtures; sanitary plumbing; steam-heating system. This building previously mentioned.

Baltimore—Office Building.—Allan McLane, receiver for the Maryland Trust Co., Maryland Telephone Building, Lexington and

Courtland streets, has awarded contract to the George A. Fuller Co., builder, 203 North street, for the reconstruction of its office building located at northwest corner of Calvert and German streets, after plans and specifications by Baldwin & Pennington, architects, 311 North Charles street. Structure is 10 stories high with basement; brick with terra-cotta trimmings; steel frame fireproof construction; slate roofing; electric wiring and fixtures; sanitary plumbing; steam-heating system; power passenger elevators. This building previously mentioned.

Baltimore—Warehouses.—Further details have been obtained concerning two warehouses for the Safe Deposit & Trust Co., 13 South street, to be erected on northwest corner of South and Pratt streets, after plans and specifications by Haskell & Barnes, architects, Central Savings Bank Building, 3 East Lexington street. Structures to be four stories high, each 30x40 feet; brick with terra-cotta trimmings; concrete foundations; steel beams; cast-iron columns; slate roofing; galvanized-iron cornices; electric wiring and fixtures; sanitary plumbing; power elevators. Thomas L. Jones & Son, 410 West Saratoga street; R. H. Frazier & Sons, 220 St. Paul street; Edward Brady & Son, 1109 Cathedral street; Edward D. Preston, Builders' Exchange Building, 2 East Lexington street; J. H. Miller, 110 Dover street; Thos. B. Stanfield & Son, 109 Clay street, and A. Knell, Jr., Saratoga and St. Paul streets, have been selected to bid on the construction. Bids to be in about September 3.

Baltimore—Truckhouse.—The Municipal Board of Awards has approved plans and specifications for truckhouse to be located on northwest corner Harford avenue and Oliver street. Structure to be brick with terra-cotta trimmings; concrete foundations; electric wiring and fixtures; sanitary plumbing; steam-heating system; cost to be about \$25,000.

Baltimore—Turntable and Roundhouse.—The Western Maryland Tidewater Railroad has awarded contract to J. J. Walsh & Son, 1525 Maryland avenue, for the construction of turntable and roundhouse to be located at Westport, Baltimore county, Md. Turntable to be 75 feet in diameter, with capacity of 200 tons. Roundhouse to be of frame construction capable of housing four engines and so constructed as to admit of future additions.

Baltimore—Stable.—E. S. Brady, 900 South Caroline street, has awarded contract to R. C. Boone, builder, 522 Falls road, for the construction of stable to be located at Patterson avenue and Monroe street. Structure is to cost about \$5000.

Baltimore—Store Building.—Leopold Kludzykowski has awarded contract to Henry Pierson, builder, 1009 Hanover street, for the construction of his store building to be located at 100 West Lombard street after plans and specifications by Haskell & Barnes, architects, Central Savings Bank Building, 3 East Lexington street. Structure to be four stories high, 18x39 feet; brick with stone trimmings; concrete foundation; steel beams; tin roofing; galvanized-iron cornice; gas fixtures; sanitary plumbing; elevator. This building previously mentioned.

Baltimore—Hay Shed.—The Baltimore & Ohio Railroad Co. has awarded contract to James Stewart & Co., builders, 319 North Charles street, for the construction of hay shed to be located on Parkin street, between McHenry and Ramsay streets. Structure to be two stories high, 80x337 feet; stone foundation; steel construction; corrugated-iron sides; slate roofing; cost to be about \$40,000. This building previously mentioned.

Baltimore—Office Building.—The Merchants & Miners' Transportation Co., 604 North Charles street, has awarded contract to Edward Brady & Son, 1109 Cathedral street, for the construction of its office building to be located at southeast corner Light and German streets after plans and specifications by Charles E. Cassell & Son, architects, 411 North Charles street. Structure to be four stories high with basement, 74x74 feet; brick with terra-cotta trimmings; concrete foundation; steel beams; cast-iron girders; cast-iron columns; slate roofing; electric wiring and fixtures; sanitary plumbing; steam-heating system; power elevators; cost to be about \$60,000. This building previously mentioned.

Baltimore—Store Building.—Samuel Jacoby, 2301 Madison avenue, as agent for his sister, has purchased the property located at 422 East Baltimore street, and has commissioned Louis Levi, architect, Central Savings Bank Building, 3 East Lexington street, to prepare plans and specifications for store building to be located on the site. Structure to be three stories high, 22x66 feet; brick with terra-cotta trimmings; concrete foundation; steel beams; tin roofing; electric wiring and fixtures; sanitary plumbing; steam-heating system; electric freight elevator of 3000 pounds capacity. This building previously mentioned.

Baltimore—Truckhouse.—Building contractors are invited by the Municipal Board of Awards to submit estimate on the construction of truckhouse to be located on the corner of Harford avenue and Oliver street. Plans and specifications covering the construction of the building can be seen at the office of the Inspector of Buildings, City Hall. Bids to be in 11 A. M. September 7.

Baltimore—Warehouses.—The William Keyser Estate, R. Brent Keyser, trustee, 11 East Mt. Vernon Place, and the John Hopkins Hospital Trust Estate, 211 North Charles street, have awarded contract to Henry Smith & Sons Company, builders, 116 South Regester street, for the construction of three warehouses to be located at 21, 23 and 25 Hanover street, after plans and specifications by Wyatt & Nolting, architects, Builders' Exchange Building, 2 East Lexington street. Structures to be five stories high with basements, 39.10x160.8 feet; brick with granite base and ornamental terra-cotta and cast-iron trimmings; concrete foundations; steel frame fireproof construction; tin roofing; galvanized-iron frames and sashes glazed with prismatic wireglass throughout buildings; ornamental iron grill work; cast-iron entrance steps; vault lights; box chutes;

beams; slate roofing; galvanized-iron cornices; vault lights; electric wiring and fixtures; sanitary plumbing; steam-heating system; power elevators. John Cowan, 106 West Madison street; Henry Smith & Sons Company, 116 South Regester street; Edward D. Preston, Builders' Exchange Building, 2 East Lexington street; Charles Gilpin, 21 East Saratoga street; the Charles McCaul Company, 123 West Saratoga street, and Cramp & Co., 407 St. Paul street, have been selected to bid on the construction. Bids to be in September 3.

Baltimore—Truckhouse.—The Municipal Board of Awards has approved plans and specifications for truckhouse to be located on northwest corner Harford avenue and Oliver street. Structure to be brick with terra-cotta trimmings; concrete foundations; electric wiring and fixtures; sanitary plumbing; steam-heating system; cost to be about \$25,000.

Baltimore—Turntable and Roundhouse.—The Western Maryland Tidewater Railroad has awarded contract to J. J. Walsh & Son, 1525 Maryland avenue, for the construction of turntable and roundhouse to be located at Westport, Baltimore county, Md. Turntable to be 75 feet in diameter, with capacity of 200 tons. Roundhouse to be of frame construction capable of housing four engines and so constructed as to admit of future additions.

Baltimore—Stable.—E. S. Brady, 900 South Caroline street, has awarded contract to R. C. Boone, builder, 522 Falls road, for the construction of stable to be located at Patterson avenue and Monroe street. Structure is to cost about \$5000.

Baltimore—Store Building.—Leopold Kludzykowski has awarded contract to Henry Pierson, builder, 1009 Hanover street, for the construction of his store building to be located at 100 West Lombard street after plans and specifications by Haskell & Barnes, architects, Central Savings Bank Building, 3 East Lexington street. Structure to be four stories high, 18x39 feet; brick with stone trimmings; concrete foundation; steel beams; tin roofing; galvanized-iron cornice; gas fixtures; sanitary plumbing; steam-heating system; power elevators; cost to be about \$60,000. This building previously mentioned.

Baltimore—Office Building.—The time for the submission of bids has been extended on the Ward estate building to be erected on northeast corner Baltimore and Charles streets after plans and specifications by Parker & Thomas, architects, 612 North Calvert street. Bids are to be in September 1. Full details concerning this building recently reported.

Baltimore—Warehouse.—The Johns Hopkins Hospital Trust Estate, 211 North Charles street, has awarded contract to John A. Sheridan Company, builders, 321 North Holliday street, for the construction of warehouse to be located at 116 and 118 South Calvert street, after plans and specifications by Worthington & Ahrens, architects, 8 East Lexington street. Structure to be six stories high with basement, 34.2x43.2 feet; brick with granite base; concrete foundation on piling; steel beams; slate roofing; fire shutters; mill construction; electric wiring and fixtures; sanitary plumbing; steam-heating system; electric freight elevator of 3000 pounds capacity. This building previously mentioned.

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galvanized-iron skylights; fireproof vaults; electric wiring and fixtures; sanitary plumbing; steam-heating system; three electric passenger elevators; three belt-driven freight elevators; three electric pavement lifts; three dumbwaiters. These buildings previously mentioned.

Baltimore—Bank Building.—Bids on the construction of the National Exchange Bank Building to be erected on Hopkins Place, German and Liberty streets, after plans and specifications by Taylor & Knowles, architects, 11½ East Pleasant street, are to be submitted September 6. Full details concerning this building recently mentioned in this column.

Baltimore—Warehouse.—Revised plans and specifications have been made for warehouse for Wm. Depkin to be located at southeast corner Grant and Mercer streets. Structure to be four stories high, 40x42 feet; brick with granite base and bluestone trimmings; concrete foundation; steel beams; the roofing; galvanized-iron cornice; fire-escape; metal ceilings; electric wiring and fixtures; sanitary plumbing; hand elevator. Henry S. Rippel, builder, 7 Clay street, is bidding on the construction. Bid to be in September 6.

Baltimore—Apartment-house.—Francis Yewell, builder, St. Paul and Pleasant streets, will erect addition to and reconstruct dwelling located at northeast corner Bolton avenue and Reservoir street, converting it into an apartment-house, after plans and specifications by John R. Forsythe, architect, 411 St. Paul street. Addition to be three stories high with basement, 32x35½ feet; brick with stone trimmings; concrete foundation; tin roofing; galvanized-iron cornice; electric wiring and fixtures; sanitary plumbing; steam-heating system; cost to be about \$16,000.

Baltimore—Apartment-house.—John T. Buckley, builder, 916 Bolton street, will erect for himself, after his own plans and specifications, apartment-house to be located at 1720 and 1722 St. Paul street. Structure to be three stories high with basement, 32.6x100 feet; brick with stone trimmings; tin roofing; galvanized-iron cornice; electric wiring and fixtures; sanitary plumbing; steam-heating system; cost to be about \$20,000.

Baltimore—Dwellings.—George A. McCauley, 932 North Gilmor street, has awarded contract to Adolph Meyer, builder, 424 Lorraine avenue, for the construction of 17 dwellings to be located on Payson street near Lafayette avenue. Structures to be two stories high, 14x15 feet; brick with stone trimmings; tin roofing; galvanized-iron cornices; gas fixtures; sanitary plumbing; furnace-heating system; cost to be about \$17,000.

Baltimore—Bank Building.—Further details have been obtained concerning bank building for Wilson, Colston & Co., 417 North Charles street, to be located at 216 East Baltimore street, after plans and specifications by J. Appleton Wilson, architect, 303 Courtland street. Structure to be three stories high with basement, 20x35 feet; brick with granite base and Seneca sandstone and ornamental terra-cotta trimmings; concrete foundation; steel beams; the roofing; granolithic pavement; galvanized-iron skylight and cornice; vault lights; vault doors; electric wiring and fixtures; sanitary plumbing; steam-heating system. George Bunnecke & Sons, 305 St. Paul street; George A. Blake, Lexington and Calvert streets; John Hiltz & Son, 3 Clay street; Morrow Bros., 212 Clay street, and Edward Brady & Son, 1109 Cathedral street, have been selected to bid on the construction. Bids to be in September 7.

Baltimore—Warehouse.—John E. Hurst & Co., Fifth Regiment Armory, Hoffman and Bolton streets, has awarded contract to John Hiltz & Son, builders, 3 Clay street, for the construction of warehouse to be located at 39 Hopkins Place, after plans and specifications by Charles E. Cassell & Son, architects, 411 North Charles street. Structure to be five stories high with basement, 28.9x147 feet; Roman brick with ornamental terra-cotta trimmings; concrete foundation; steel beams; cast-iron columns; mill construction; tin roofing; electric wiring and fixtures; sanitary plumbing; steam-heating system; power elevator; pavement lights. This building previously mentioned.

Baltimore—Warehouses.—The Central Metal & Supply Co., southeast corner Holliday and Centre streets, has awarded contract to Henry S. Rippel, builder, 7 Clay street, for the construction of two warehouses to be located at 611, 613 and 615 East Lombard street, after plans and specifications by Albert S. Watts, architect, Pikesville, Md. Structures to be four stories high, 44.6x90 feet; brick with granite base and brownstone trimmings; concrete foundations; steel beams; cast-iron columns; tin roofing; galvanized-iron cornices; fire shutters; vault doors; sanitary plumbing; gas

fixtures. Elevators not included in contract. These buildings previously mentioned.

Manufacturing Buildings and Other Enterprises.

Baltimore—Fuller's-earth Mines.—The Southern Fullers Company has been incorporated, with a capital stock of \$100,000, for mining fuller's earth and other products, by John J. Watson, Saratoga and Courtland streets; Edward L. Wyatt, John D. Roe, Albert J. Marshall, 314 East Lafayette avenue, and Jesse Insley.

Baltimore—Electric-light and Power Plant. The Maryland Telephone Co., David E. Evans, president, Lexington and Courtland streets, has purchased a large tract of land in South Baltimore, near Ferry Bar, on which it will erect its \$1,000,000 electric-light and power plant previously mentioned. Estimates on construction on preliminary sketches are now being made by a prominent local contractor.

Baltimore—Coffee-roasting Plant.—The Enterprise Coffee Co., H. V. Casey, president, 621 North Calvert street, has commissioned Thomas C. Kennedy, architect, 331 North Charles street, to prepare plans and specifications for coffee-roasting plant to be located on South Caroline street. Structure to be three stories high with basement, 39x132 feet; brick with stone trimmings; concrete foundation; steel beams; tin or slate roofing; electric wiring and fixtures; sanitary plumbing; steam-heating system; power elevator; coffee-roasting machinery.

Baltimore—Thread and Net Mill.—The Manufacturers' Record is informed that the Barbour Flax Spinning Co., Grand street, near Prince street, Paterson, N. J., and 48 White street, New York, will build a branch net and thread mill at Baltimore.

Baltimore—Artificial-stone Works.—The

of New York is president; D. Evans of Pittsburgh, vice-president, and E. Bumford of Birmingham, secretary-treasurer.

Birmingham—Printing.—The Kant Printing Co. has increased its capital stock from \$800 to \$12,000.

Brewton—Mercantile.—E. M. Lovelace, J. M. Padgett, W. H. Binton, W. Y. Lovelace and W. R. Larkin have incorporated the Escambia Mercantile Co. with a capital stock of \$50,000.

Camden—Cotton-oil Mill, Ice and Electric Plant.—J. N. Miller, B. F. Miller, W. R. Alford, W. R. Bruner and others have incorporated the Farmers' Oil & Manufacturing Co., with a capital stock of \$30,000, to build and operate cottonseed-oil mill, ice and electric plants.

Evergreen—Fruit Farm and Nursery.—E. A. Beaven, William Cunningham and William C. Crumpton have incorporated the Conchue Fruit Farm & Nurseries Co., with a capital of \$10,000.

Florence—Lumber.—A. A. Rose of Rogersville, Ala., and R. F. Bunting of Florence have organized the Bunting-Roe Company to deal in hardwood lumber.

Geneva—Cotton Gin, etc.—The Samson Gin & Mill Co. has been incorporated with a capital of \$3000; J. M. Lee, president; J. W. Daugherty, vice-president; J. S. Collins, secretary.

Mercury—Cold-storage Plant.—Alabama Nursery Co. has let contract to E. L. Patterton, Huntsville, Ala., for the erection of cold-storage plant of fireproof construction, 75x75 feet, slate roof, etc., at a cost of \$5500. Barber & Klutz of Knoxville, Tenn., are the architects in charge. This building previously mentioned.

Mobile—Watch Factory.—Reports state that O. E. Bell of Indianapolis, Ind., representing

have incorporated the Franklin Planting Co. with a capital of \$2500.

Blevine—Mercantile.—W. S. Duckett, F. L. Wells and E. T. Wells have incorporated the Wells-Duckett Mercantile Co., with a capital of \$3000. The office of the company will be at Wallaceburg, Ark.

Felsenthal—Saw-mill.—A large saw-mill plant will be built. Plans and specifications for the necessary buildings are being prepared by R. W. Lane, architect, of Pine Bluff, Ark.

Fort Smith—Electric-light and Power Plant.—The Fort Smith Light & Traction Co. contemplates making extensive improvements to its plant and railway system, and has engaged H. M. Sykesby & Co., New York Life Building, Chicago, Ill., as engineers in charge.

Gilam—Lead and Zinc Mines.—Fred Morrell, superintendent Banon mine, will develop lead and zinc deposits which have been discovered.

Harrison—Mineral Lands.—Frank Pace, Walter Ford So Reille, Alice L. So Reille, Edith Burgman, A. Burgman and Troy Pace have incorporated the Oregon Flat Investment Co. with a capital stock of \$60,000.

Jonesboro—Furniture Factory.—M. D. Wells of Helm, Miss., contemplates the establishment of a furniture factory at Jonesboro.

Little Rock—Real Estate.—The C. S. Stift Realty Co. has been incorporated, with a capital of \$1000; C. S. Stift, president; Nathan Stift, vice-president; Nelson Frank, secretary.

Mena—Coal-mining and Coke-manufacturing.—M. B. Mayhew, E. Anderson, W. J. Gallagher, Mord Roberts and W. L. Kellogg have incorporated the Mena Coke & Coal Mining Co., with a capital stock of \$200,000, to mine coal, manufacture coke, drill for oil, quarry slate, etc.

Monticello—Cotton Mill.—It is reported that the Monticello Cotton Mills has erected additional building and ordered 2500 spindles and 150 looms additional.

Mount Hersey—Lumber and Staves.—L. W. Clark as president, W. W. Moore and Sherman Hinze have incorporated the Buffalo Stave & Lumber Co. (office at Willcoxon) with a capital of \$3750.

Ozark—Water-works.—The city contemplates the establishment of a system of water-works. Address The Mayor.

Perry—Oil Wells.—It is reported that J. T. McAnally of Clarendon, Ark., will drill for oil near Perry.

Pine Bluff—Mercantile.—The Southern Furniture Co. has been incorporated, with a capital stock of \$10,000; George W. Ritchie, president; M. J. Ritchie, secretary; J. W. Culpepper, treasurer.

Tucker—Mercantile.—Graham Bros. Co. has increased its capital stock to \$35,000.

Warren—Water-works System.—The city contemplates the establishment of water-works system. Address The Mayor.

FLORIDA.

Graceville—Woodworking Plant.—A company is being organized with E. R. Parker as president to establish plant for manufacturing veneers, staves, heading, hoops, baskets, novelties, etc. No contracts have been awarded. Plans have not been prepared.*

Graceville—Electric-light and Water Works.—The city is preparing to issue bonds for the purpose of constructing water-works and erecting electric-light plant. No contracts have been awarded. Address The Mayor.*

Kissimmee—Orange Packing-house.—C. H. Carson will erect large orange packing-house.

Live Oak—Water-works.—The city has voted \$36,000 of bonds to purchase water-works. Address The Mayor.

Miami—Drug Company.—E. L. Burdine, H. F. Atkinson and J. R. Clemons have incorporated the Red Cross Pharmacy with a capital stock of \$20,000.

Miami—Lumber and Building Material.—Joseph A. McDonald, John B. Reilly and George A. McKinnon have incorporated the J. A. McDonald Company with a capital stock of \$20,000.

Miami—Mercantile.—E. R. Romph, W. Jas. Rodgers and H. F. Atkinson have incorporated the Anthony Romph Company with a capital stock of \$25,000.

Miami—Starch Factory.—Biscayne Starch Manufacturing Co. reported last week as having incorporated with a capital stock of \$50,000 to establish starch-making plant, will erect building 200x100 feet, plant to have a capacity of 10 tons per 10 hours; J. W. Jernigan and Ed Woodcock, engineer and architect in charge, respectively.*

Sutherland—Packing-house and Cannery.—

Best Medium for Information.

WELSBACK COMPANY,
1421 North Charles Street.

Baltimore, Md., July 12, 1904.

Manufacturers' Record Publishing Co., Baltimore:

Gentlemen—In renewing our subscription to the MANUFACTURERS' RECORD for another year, I take pleasure in assuring you this paper has been of great assistance to us in securing business within the burnt district. It has kept us at all times well advised of the movements of prospective customers, and the details of this information have been remarkably accurate. We are pleased to recommend it as the best medium for information concerning new Baltimore.

Very truly yours,

FRANK W. EMORY, Manager.

Standard Stone Manufacturing Co. has been incorporated, with an authorized capital stock of \$50,000, for manufacturing artificial stone, by Charles A. Morrow, 212 Clay street; Wm. F. Seim, Howard and Fayette streets; John F. Brumshagen, 4 Builders' Exchange Building, 2 East Lexington street; John Hiltz, 3 Clay street, and Jacob C. McClenahan.

Baltimore Excelsior-machine Company.—The Perfection Excelsior Machine Co. has been incorporated, with an authorized capital stock of \$500,000, for the purpose of building and utilizing a newly-invented machine for the manufacture of excelsior. It is stated that the machine has various advantages over previous types of excelsior machines. The company has elected E. J. Godman, care of Flynn & Enrich Company, Holliday and Saratoga streets, vice-president, and W. H. Niemeyer is one of the directors. Messrs. Godman and Niemeyer are the inventors of the machine.

Subbids Wanted.

Mention of contractors wanting subbids on construction work and material will be found, when published, in the "Machinery Wanted" column on another page under the heading of "Building Equipment and Supplies."

ALABAMA.

Anniston—Electrical Supplies Factory.—The Anniston Electric & Gas Co., reported incorporated last week with capital stock of \$250,000, will at once begin the erection of buildings to be equipped with machinery for manufacturing electrical supplies. Buildings will cost about \$15,000.

Birmingham—Auxiliary Furnace.—A company has been incorporated to manufacture and introduce an improved auxiliary furnace to use producer gas under boilers. W. Trice

a watch-manufacturing company operating plants in several towns of Indiana, is in Mobile for the purpose of establishing branch factory.

Mobile—Land, Timber, etc.—Samuel L. Cox, Edward E. Cox and Tyler Berry have incorporated the West Alabama Land Co. with a capital of \$10,000.

Mobile—Iron Works.—Arthur Bailey, Caroline Bailey, S. L. LaVergne and W. G. Ward have incorporated the Bailey Iron Works Co. with a capital stock of \$50,000.

Mobile—Compress Company.—Henry T. Robert II, and Rittenhouse Smith, J. Blocker Thompson and A. W. Walton have incorporated the Gulf Compress Co. with a capital stock of \$25,000.

Montgomery—Drugs.—Incorporated: The Wallace Drug Co., with a capital stock of \$20,000, by W. B. Wallace, J. M. Wallace and C. W. Wallace.

Sylacauga—Cotton Mill.—Central Cotton Mills, owned by the Avondale Mills, offices at Birmingham, Ala., has awarded all contracts for buildings and machinery to double its 11,200-spindle plant; new building to be 100x330 feet in size. Architect and engineer in charge is the firm of T. C. Thompson & Bro. of Birmingham, Ala.

Sylacauga—Marble Land Development.—The Alabama White Marble Co. will consider increasing its capital stock from \$100,000 to \$250,000 to develop extensive marble deposits.

ARKANSAS.

Argenta—Water-works and Electric-light Plant.—The city contemplates the establishment of a water-works system and electric-light plant. Address The Mayor.

Avery—Mercantile and Real Estate.—J. P. Franklin, M. J. Siesel and L. W. Pfeifer

The Fruit Growers' Association has been organized and contemplates establishing large packing-house and fruit cannery.

Tallahassee—Mercantile.—Philip Miller, C. B. Mallard and C. B. Griffin have incorporated the Miller & Mallard Grocery Co. with a capital stock of \$100,000.

Tampa—Cigar Factory.—D. A. Switzer, Jr., has purchased the business of the Gustoso Cigar Co., formerly located at Waycross, Ga., and contemplates the erection of plant at Tampa.

Umatilla—Brick Works.—Thomas A. Davis and associates are organizing a company for the establishment of brick works. Machinery has not been purchased.

West Palm Beach—Street Improvements.—The city has voted \$9000 of bonds for street improvements; George G. Currie, mayor.

GEORGIA.

Albany—Cottonseed-oil Mill.—It is reported that J. C. Blair & Co., Louisville, Ky., are promoting the establishment of a 20,000 pound cottonseed-oil mill, which will represent an investment of \$10,000.

Allapaha—Cotton Gin and Grist Mill.—Nathan L. King will establish cotton gin and grist mill, and is reported to have purchased part of the machinery.

Cartersville—Ochre Mill.—It is reported that the Cherokee Ochre & Barytes Co. will rebuild its mill recently destroyed by fire at a loss of about \$10,000.

Cross Roads—Cotton Gin.—Brooks & Prewitt will erect 70-saw gin.

Dublin—Tiling and Building-material Factory.—George Hydraulic Stone Co., recently reported as incorporating, will erect plant 50x150 feet to manufacture concrete building material equal in capacity to 25,000 blocks per day. H. C. Quinn is president of the company.

Garfield—Cottonseed-oil Mill.—Dr. Gay is promoting the erection of cottonseed-oil mill.

Hartwell—Steam Laundry and Ice Plant.—I. J. Phillips of Greenville, S. C., has purchased site at Hartwell for the erection of ice plant and steam laundry. Will probably not begin construction this year.

Macon—Water-works.—The Mayor has recommended to the city council that the city issue \$25,000 in bonds for the purpose of purchasing the local water-works.

Milledgeville—Planing Mill.—J. E. Stembidge contemplates rebuilding planing mill which was recently burned at a loss of about \$12,000.

Savannah—Excelsior and Handle Factory.—Louis Choen of Sandersville, Ga., and others have applied for charter to erect excelsior and handle factory at Savannah.

Savannah—Excelsior Manufacturing, etc.—The Southern Manufacturing Co., with capital stock of \$10,000, has been incorporated to manufacture excelsior, mattresses, etc., by Lewis Cohen, F. B. Stubbs and J. E. Linda. The company will erect plant 41x15 feet, to have a capacity of 10 tons per day. R. L. Blanchard, Savannah, Ga., is the architect and engineer in charge.

Summit—Cottonseed-oil Mill.—Dr. Jones contemplates the erection of cottonseed-oil mill.

Watkinsville—Cotton Mill.—It is rumored that A. J. Baxter of High Shoals, Ga., will build a cotton mill at Watkinsville.

KENTUCKY.

Carlisle—Water-works.—The city has decided to construct the water-works lately reported as contemplated, and 10 acres of land have been purchased as site for reservoir. W. L. Kennedy is mayor.

Fulton—Watch Factory.—It is stated that the Linden Manufacturing Co. will move its plant for manufacturing watch materials from Aurora, Ill., to Fulton.

Greenville—Water-works.—It is reported that William Eades of Paducah, Ky., is installing water-works system at Greenville.

Lexington—Candy Factory.—I. W. Kennett is negotiating with a Chicago manufacturer for the establishment of candy factory at Lexington.

Louisville—Pasteboard Factory.—James F. Buckner, Jr., superintendent of the Board of Trade, is in correspondence with a syndicate regarding the establishment of a strawboard and pasteboard manufacturing plant in charge.

Paducah—Storm Sewer.—The city has awarded contract to Charles Robertson at \$20,45 for the construction of storm-water sewer.

Paintsville—Lumber.—John C. C. Mayo, H. S. and C. W. Howes have incorporated the Howes Land Co. with a capital stock of \$50,000.

LOUISIANA.

Lake Charles—Turpentine Development.—E. H. Vickers & Co. have secured the right to box the trees on from 900 to 1000 acres of pine lands for the purpose of extracting turpentine.

Minden—Water-works.—The city has voted the issuance of bonds to the extent of \$36,000 for the construction of a water-works system. It is reported J. H. Thompson, 165 Fisher Building, Chicago, Ill., has been engaged as engineer in charge. A. M. Leary is mayor.

New Orleans—Tobacco Manufacturing, etc. The Louisiana Tobacco Co. has been incorporated with a capital stock of \$50,000; Charles S. Foster, president; John B. Dunne, vice-president; William F. Tutt, secretary, for manufacturing and dealing in tobacco.

New Orleans—Mercantile, etc.—Incorporated: E. Sevilla & Co., Limited, capitalized at \$75,000, for mercantile and other purposes; Delia Vila, president; E. Sevilla, vice-president, and Charles Maduel, secretary.

New Orleans—Real-estate Improvement.—The Crescent City Land Co., Ltd., has been incorporated with a capital stock of \$25,000; Henry Flaspolier, president; George John Elitzman, vice-president; Arthur J. Peters, secretary; Joseph A. Schindler, treasurer.

New Orleans—Commercial.—The Firm Offer Transmitting Co., capitalized at \$10,000, has been incorporated with Anatole J. Forstall, president; Arthur H. Gilbert, vice-president, and William A. Brand, secretary.

New Orleans—Canal.—The Sewerage and Water Board has opened bids for the construction of the canal, continuing the Taylor avenue canal to join the Orleans canal at the pumping station. It is reported that Frederick Camors submitted the lowest bid at \$3842.

New Orleans—Druggists' Supplies.—The Druggists' Sundries Co., Ltd., has been incorporated with a capital stock of \$25,000 and privilege of increasing to \$50,000; Sylvan Levy, president; Benjamin Levy, vice-president; Bud I. Bloom, secretary.

New Orleans—Cooperage Plant.—The Sea-borne Cooperage & Manufacturing Co., Ltd., reported last week as incorporating with a capital stock of \$100,000, will build plant to have a capacity of 80,000 staves daily; G. L. Erdle, engineer in charge.*

New Orleans—Mercantile.—G. W. Kitteridge, Edward G. Grau, W. P. Bergen and H. Waters have incorporated the Kitteridge-Waters Supply Co. with a capital stock of \$20,000.

New Orleans—Commission and Mercantile. The Louisiana Shipping & Export Co., Ltd., has been incorporated with a capital stock of \$25,000; Jacob Weinberger, president; Arthur H. Page, vice-president; John B. Honor, treasurer; Alfred H. Clement, secretary.

St. Martinville—Moss Factory and Rice Mill.—George L. Livingston and Richard T. Easton will construct a moss factory and small rice mill.

Saint Tammany—Saw-mill.—S. H. Bolling of Shreveport, La., contemplates the erection of large saw-mill in the lumber district of Saint Tammany.

MARYLAND.

Cumberland—Supply Company.—The South Cumberland Supply Co. has increased its capital from \$4000 to \$6000.

Cumberland—Coal Company.—The Mount Union Coal Co. of Allegany county will consider a proposition to increase its capital stock from \$1000 to \$10,000.

Hagerstown—Silk Mill.—The Hagerstown Silk Co. has purchased site for the erection of another silk mill. Its present plant has 12 looms.

Salisbury—Packing Company.—The Peninsula Packing Co. has been incorporated with a capital of \$5000.*

Williamsport—Bridge.—P. J. Courtenay of Philadelphia, Pa., is working on a proposition to build a \$75,000 bridge over the Potowmac river.

MISSISSIPPI.

Bay Springs—Saw-mill.—The Denson Lumber Co., reported last week as incorporating with a capital stock of \$100,000, will erect plant 40x174 feet and 58x72 feet, to have a capacity of 25,000 feet of pine and hardwood lumber daily. V. M. Tulford is the engineer in charge.

Collins—Water-works.—The city contemplates issuing bonds for the construction of water-works system. Address The Mayor.

Columbus—Agricultural-implement Works. The Dodson Plow Co. of Humboldt, Tenn., will, as reported last week, remove its plant to Columbus. It will manufacture plows, cotton scrapers, cotton planters and other agricultural implements; capital stock to be \$25,000.*

Corinth—Chair Factory.—W. E. Small Chair Factory will erect plant to have a capacity of 60 dozen quarter-sawed oak chairs per day. It is reported that work on building has begun and machinery has been ordered.

Greenville—Woolen Mill.—M. Craven of Springfield, Mass., does contemplate erecting woolen mill in the South, as reported last week, but no decision has been made.

Holly Springs—Telephone System.—The city has granted franchise to the Memphis Long-Distance Telephone Co., Memphis, Tenn., for the construction of telephone system at Holly Springs.

Jackson—Spoke Factory.—The Southern Spoke Factory has been incorporated with a capital of \$5000.

Meridian—Mercantile.—Edwin A. Spinks and associates have incorporated the Dixie Company with a capital of \$10,000.

Poplarville—Pine-timber Lands.—Edward Hines Lumber Co. of Chicago, Ill., has purchased 500,000 acres of pine lands upon which the stumpage is estimated at 700,000,000 feet.

Utica—Water-works and Electric-light Plant.—The city has voted to issue \$19,000 of bonds for the establishment of water works and electric-light plant. Address The Mayor.

MISSOURI.

Centralia—Electrical Plant.—The city has granted franchise to R. H. Baldwin to establish electrical plant.

Granite City—Railroad Supplies.—A syndicate, headed by Clarence H. Howard and capitalized at \$1,000,000, has acquired controlling interest in the Commonwealth Steel Co.'s plant, and will manufacture cast-steel railroad specialties.

Nixa—Creamery.—J. B. Rice, F. M. Watson, J. Herndon and others have incorporated the Nixa Creamery Co. and will erect plant.

St. Louis—Iron Mining and Smelting.—The South Missouri Iron & Smelting Co. has been incorporated, with capital stock of \$1,000,000, by E. P. Ewart, H. O. Engelke, Charles Dollman and others, for developing iron mines and smelting ores.

St. Louis—Coal Mines.—Incorporated: The Berry-Berg Coal Co., with capital stock of \$30,000, for developing coal mines, by Ed. H. Coffin, Frank J. Bergs, Robert L. McLaren, Jacob P. Bergs and William H. Coffin.

St. Louis—Implement Works.—The George W. Peter Implement Co., recently reported as incorporating with a capital stock of \$100,000, contemplates building plant for the manufacture of a patented automatic equalizer. About \$5000 will be invested.

Washington—Electric Light and Power Plant.—It is reported that the Tibbs Electric Co. has decided to install an electric light and power plant and engaged Ruebel, Schwedt & Wells, Chemical Building, St. Louis, Mo., as engineers and to furnish plans and specifications.

NORTH CAROLINA.

Asheville—Stove Factory, etc.—W. A. Boyce, W. C. Carmichael and H. B. Proffitt have incorporated the Mountain Steel Range Co., with a capital stock of \$50,000, to manufacture and deal in stoves, ranges, etc.

Cerro Gordo—Land and Lumber.—Incorporated: The Williamson & Brown Land & Lumber Co., with capital stock of \$35,000, by J. C. Williamson, D. W. Brown and H. D. Williamson.

Columbia—Real Estate.—D. O. Newberry, H. M. Newberry and D. W. Sawyer have incorporated the D. O. Newberry Company with an authorized capital stock of \$25,000.

Concord—Mercantile.—D. F. Cannon, Jr., G. F. Brown, E. H. Brown, J. A. Cannon, J. R. Smith and others have incorporated the Brown-Cannon Company with an authorized capital stock of \$100,000.

Elkin—Mercantile.—J. C. Bishop, D. W. Weaver and C. H. Bishop have incorporated the Elkin Grocery Co. with an authorized capital stock of \$25,000.

Fayetteville—Cotton Mill.—William Coleman, president of the Glenn-Lowry Manufacturing Co. of Whitmires, S. C., is reported as having purchased 456 acres of land at Fayetteville, which he will use as location for the erection of a cotton factory to cost \$1,000,000, electric power for operating the machinery to be supplied by the Cape Fear Electric Power Co.

Friendship—Excelsior Factory.—Brown & Rodgers of Winston-Salem, N. C., have begun the erection of an excelsior factory at Friendship.

Goldsboro—Hardware.—Sutton Hardware Co. has been incorporated with a capital of \$50,000, with privilege of increasing to \$25,000; Thomas L. Sutton, president, and J. R. Griffin, secretary.

Graham—Cotton Mill.—The Carolina Cot-

ton Mills has begun construction of annex 50x120 feet, three stories high, to contain 3000 spindles and 500 looms; will also install steam-power plant for emergency in case of water shortage. General improvements to plant will be made.

Maycock—Land and Lumber.—The Carolina Land & Lumber Co. has increased its capital stock from \$75,000 to \$100,000.

Monroe—Furniture Factory.—W. M. Gordon is organizing a company to establish furniture factory to cost about \$15,000.

Morganton—Cotton Mill.—Alpine Cotton Mills has amended charter, increasing capital stock from \$100,000 to \$250,000.

Murphy—Marble Quarries.—W. H. and C. A. Woodbury, F. A. Gennett and P. C. Hawkins have incorporated the Cherokee Marble Works, with a capital of \$10,000, to operate quarries and deal in marble and stone.

Newton—Knitting Mill.—Newton Hosiery Mills is preparing to add 50 knitting machines.

Speed—Cotton-oil Mill, etc.—A. J. Parker, W. J. Davenport, R. H. Langston, B. F. Shelton and others have incorporated the Speed Milling Co., with an authorized capital stock of \$50,000, to manufacture cotton oil, truck barrels, crates, etc.

Spencer—Water-works and Sewerage System.—It is stated that A. D. Smith and S. T. Dorsett have been appointed the committee in charge of arranging for the construction of the proposed water-works and sewerage system reported in July, plans and specifications for which were to be prepared by H. C. Pressey of Washington, D. C. Bids will probably be invited on constructing the plants for the city or for building and operating same by private corporation.

Taylorville—Lumber Plant.—Abey Johnson is forming company to establish plant for finishing lumber.*

Wilmington—Ice Plant.—The Independent Ice Co. contemplates enlarging and improving its plant.

Winston-Salem—Handle Factory.—The Winston Handle Co. has been organized with increased capital and will erect factory, installing new and modern machinery. H. A. Tatum is president; B. F. Huntley, vice-president; Thomas Kapp of Bethania, N. C., secretary. The company has been operating a plant.

SOUTH CAROLINA.

Columbia—Manufacturing Chemicals.—The James Chemical Co. has been incorporated, with a capital stock of \$10,000; L. A. Griffith, president; James L. Hanahan, general manager; William Weston, secretary.

Columbia—Oil Refinery, Soap Factory and Lard Plant.—The Taylor Manufacturing Co. has completed its cottonseed-oil mill (80 tons capacity in 24 hours) and its ginnery (one bale capacity in 12 minutes). It is contemplated to add a 500-barrel refinery, a soap factory and a lard plant next year.

Dillon—Cotton Mill.—Maple Cotton Mills, lately reported as to erect additional mill of \$5000 spindles, will contract for 100x300-foot structure to hold the new machinery; will also erect 30 operatives' houses.

Dillon—Hardware.—The Brown-Westbrook Hardware Co. has increased its capital stock from \$5000 to \$35,000.

Florence—Electrical Light and Power.—H. C. Case and William Measey of Philadelphia, Pa., have incorporated the Florence Light & Power Co. with a capital stock of \$50,000.

Florence—Electrical Light and Power.—S. S. Ingram of Georgetown, S. C., and Wm. Maul Measey and Henry C. Case of Philadelphia, Pa., have incorporated the Florence Light & Power Co. with a capital stock of \$50,000. It is stated that the company will absorb the Florence Electric Light & Power Co. Address the company, care Willcox & Wilcox.

Greenville—Live-stock, etc.—The Hays Live-stock & Vehicle Co. has been incorporated with a capital stock of \$50,000; R. M. Hays, president; A. G. Hays, vice-president; S. O. Harvey, secretary.

Honea Path—Lumber.—R. M. Shirley, J. T. Stone, E. W. Grubbs and J. F. Shirley have incorporated the Honea Path Lumber Co., with a capital of \$5000.

Laurens—Electrical Plant and Telephone System.—The Laurens Laundry Co., Inc., will install electrical plant and telephone system in its building.*

Lone Star—Mercantile.—F. J. Buick, S. H. Mack, J. G. Stoudemire and J. E. Buick have incorporated the Pine Grove Mercantile Co. with a capital of \$10,000.

McClellanville—Land and Lumber.—P. T. Morrison, Sr., J. B. and H. T. Morrison have incorporated the Wambaw Land & Lumber Co. with a capital stock of \$25,000.

McColl—Drug Company.—The Moore Drug Co. has been incorporated with a capital of \$10,000; J. C. Moore, president; W. C. P. Bellinger, secretary.

North Augusta—Excelsior Factory.—L. F. Verdery & Co. will rebuild their excelsior factory, reported burned last week at a loss of \$5000; R. M. Youngblood, architect in charge; contract awarded to North Augusta Lumber Co.; building to be one and one-half stories high, 30x50 feet; excelsior, mattress and box machinery will be installed.

Westminster—Knitting Mill.—W. P. Anderson is organizing company to have capital stock of \$20,000 for the purpose of establishing a knitting mill.

TENNESSEE.

Chattanooga—Hardware.—The Hall-Melton Hardware Co. has increased capital stock from \$20,000 to \$50,000.

Chattanooga—Iron Foundry.—John W. Nolan (manager), Thomas P. McMahon, T. C. Latimore, E. P. Nolan and associates will organize company to establish an iron foundry. They have leased building on Boyce street and awarded contract for the necessary mechanical equipment; capital to be \$5000.

Chattanooga—Distillery.—It is reported that J. S. Cannon and others will build a distillery.

Chattanooga—Water-power-Electrical Plant. The time limit having expired in which the city of Chattanooga could take advantage of its privileges for building the proposed "suck" power plant, Messrs. J. C. Guild and C. E. James will arrange for the enterprise in accordance with their privileges. It is understood that they are now endeavoring to interest capitalists who will finance the company to be formed, and that engineers will soon begin the preparation of plans and specifications for the plant. This development is to be undertaken in the Tennessee river, 13 miles below Chattanooga, in accordance with the rights granted by Congress and referred to in this column several months ago. The cost of the entire work will probably be \$1,000,000.

Chattanooga—Woodworking Plant.—The Case Lumber Co., recently reported as having sold its plant to the McLean Lumber Co., Buffalo, N. Y., will erect at East End, a suburb of Chattanooga, a plant of large capacity for edging and trimming rough lumber.

Columbia—Planing Mill.—The N. F. Vaughn Manufacturing Co., referred to last week as intending to rebuild planing mill recently destroyed by fire at a loss of \$10,000, will erect frame building, 60x145 feet, with corrugated iron on the top and sides. Boiler and engine room will be of brick. Plant will be equipped with modern machinery.

Dickson—Phosphate Plant.—The Tennessee Iron & Land Co., J. O. Griffith, general manager, Nashville, Tenn., recently referred to as intending to develop phosphate lands in Hickman county, will erect plant to have a capacity of 100,000 tons per year. There will be a mixing plant of 50,000 tons capacity per year. Acid will be purchased. About \$200,000 will be invested in the enterprise.*

Dresden—Stave Mill.—W. B. Shannon & Co. have rebuilt and installed machinery in their stave mill, reported last week as having burned with a loss of \$1000.

Lebanon—Canning Factory.—J. W. Young, J. E. Moore and D. L. Draper are endeavoring to establish canning factory.

Lexington—Cotton Gin.—Muse & Co., W. W. Sweatt, J. M. Lancaster and G. W. Florence will incorporate the Merchants' Gin Co. to erect cotton gin. It is reported that machinery has already been purchased.

Memphis—Car Works.—The American Car & Foundry Co. (general offices Lincoln Trust Building, St. Louis, Mo.) has taken over the Southern Car & Foundry Co. plant at Birmingham, Memphis, as recently referred to. The company will make extensive improvements, adding to the machinery and thoroughly modernizing the equipment, and expects to resume operations by September 15.

Morristown—Trunks.—Incorporated: The Morristown Trunk Co., capitalized at \$10,000, by J. S. Wigington, P. H. Powder, Hugh M. Tate and others.

Nashville—Saddlery Plant.—The Nashville Saddlery Co. will erect building of brick and stone, 100x200 feet, three stories high. Structure will be equipped with modern machinery for manufacturing all kinds of saddlery. It is reported that work has already begun.

Nashville—Carbon Paint Works.—It is reported that J. R. Jeffries, E. Bobbs and others of Chicago, Ill., will establish in Nashville a plant for manufacturing carbon paint, used in car painting.

Nashville—Furniture.—J. B. Lovell, F. M. Loftin, J. R. Roberts and W. C. Cherry have

incorporated the John B. Lovell Furniture Co. with a capital stock of \$75,000.

Nashville—Mercantile.—A. H. Redford, A. R. Halley, W. C. Cherry, T. M. Steger, Jr., and Linton Hickman have incorporated the Redford Book Co. with a capital of \$5000.

Oblion County—Lumber.—John W. Bransford, H. P. Bransford, J. H. Hinton, T. L. Venable and R. H. Driskill have incorporated the Bransford Lumber Co. with a capital stock of \$15,000.

Tilbs—Cotton Gin.—F. B. Shaw, W. T. Davis, W. S. Baxter, G. H. Harper and associates have incorporated the Tilbs Gin Co. with capital stock of \$5000 for operating cotton gin.

TEXAS.

Amarillo—Cannery.—A. J. Lundergreen and the secretary of the Board of Trade are endeavoring to secure the establishment of a cannery plant.

Beaumont—Oil Wells.—The Cavitt Oil Co. has been incorporated by Winslow Robinson, W. H. Cavitt and L. Cartwright, Jr., with capital stock of \$10,000, to drill for oil.

Beaumont—Steel Bridge.—The Texas & New Orleans Railroad will join the city in constructing steel bridge with clear height of 24 feet over the railroad tracks, probably on Archie street. Structure will cost not less than \$30,000; G. O. Hawkes, Houston, Texas, superintendent Texas & New Orleans Railroad.

Beaumont—Coffee Factory.—Ashton Robbins of Torreon, Mexico; J. J. Westcott and others of Beaumont are endeavoring to organize a company for the purpose of establishing plant to extract and bottle coffee after a new method.

Beeville—Ice Plant and Creamery.—J. B. Brooke of the San Antonio & Aransas Pass Railway is endeavoring to establish ice plant and creamery at Beeville.

Dallas—Fuel and Ice.—Chartered: The Dallas Ice & Fuel Co., capitalized at \$30,000, by C. L. Wakefield, Joseph E. Cockrell and Edward Gray.

Dallas—Coal Company.—J. R. Wright, J. C. and Henry McKay have incorporated the J. R. Wright Coal Co. with a capital of \$10,000.

El Paso—Mercantile.—James E. Dick, C. Louis Kerr, J. E. Berkley and others have incorporated the James Dick Co. with a capital stock of \$75,000.

El Paso—Biscuit Factory.—H. B. Grubbs of St. Louis, Mo., is promoting the establishment of a biscuit factory to be capitalized at \$50,000, of which \$20,000 will be expended in building and equipping plant.

Fort Worth—Live-stock.—E. G. Rall, W. A. Scrivner, Geo. W. Barnhart, Fritz Straughn and James Stewart have incorporated the Interstate Commission Co., with a capital stock of \$10,000, for dealing in live-stock.

Galveston—Seawall Extension.—The United States engineers have awarded contract to J. M. O'Rourke & Co. at \$259,825 for the construction of the seawall extension fronting the government property at Fort Crockett. These contractors built the count seawall, of which the government seawall is an extension.

Galveston—Cottonseed Meal, etc.—A. E. Bush, C. H. Hughes and Minor Stewart have incorporated the Texas Cake & Meal Co., with a capital stock of \$25,000, to manufacture and deal in the products of cottonseed.

Greenville—Planing-mill, Electric-light and Ice Plant.—M. R. Graham, A. Edwards, G. W. Raum and W. H. Goolsby have incorporated the Greenville Power & Manufacturing Co., with a capital stock of \$15,000, for the purpose of establishing planing mill, electric-light and ice plant.

Hallettsville—Canning Factory.—The Hallettsville Trucking Association, Wm. Blakeslee, secretary, contemplates the establishment of a cannery factory.

Houston—Elevator Factory.—It is reported that M. H. Robbins, Jr., is in Houston negotiating for a site upon which to locate factory for Northern enterprise engaged in the construction of passenger and freight elevators.

Houston—Fertilizer Factory.—Leon Rollins of Keokuk, Iowa, representing a Chicago firm, contemplates the establishment of fertilizer factory.

Houston—Factory Building.—The Lottman Manufacturing Co. will erect on Runnels street a two-story brick building 60x100 feet, at a cost of \$5300. It is reported that work has already begun.

Lane City—Rice Mill, etc.—Jonathan Lane,

Charles Boedeker and W. B. Eldridge have incorporated the Lane City Milling Co., with a capital stock of \$60,000, to mill rice and conduct warehouse.

Lockhart—Cottonseed Oil Manufacturing and Refining.—Incorporated: The Lockhart Oil & Refining Co., capitalized at \$50,000, for manufacturing and refining cottonseed oil, by John B. Holt, E. A. Masur, E. L. Bowden, M. B. Wilson, A. R. Chew, James G. Burleson and others.

North Fort Worth (Postoffice at Fort Worth)—Water-works.—John B. Hawley has been retained by the City Council as consulting engineer for construction of water-works plant, for which \$100,000 in bonds was recently issued.

Quanah—Water-works.—The city has employed John B. Hawley of Fort Worth Texas, as consulting engineer for the construction of water-works system. The Mayor can be addressed.

San Antonio—Irrigation System.—Chartered: The Rio Grande Land & Irrigation Co., with capital stock of \$300,000, to construct irrigation systems, develop lands, etc., by T. D. Cobbs, Ira P. Hildebrand and John P. Withers.

Stamford—Mercantile.—H. O. Wooten, R. L. Penick and H. S. Abbott have incorporated the W. O. Wooten Grocery Co. with a capital stock of \$50,000.

West—Cotton Mill.—The Brazos Valley Cotton Mills, recently reported incorporated with \$100,000 capital, expects to double within 12 months the old West Cotton Mills which it acquired. T. M. West is president; E. G. Blume, secretary, and Albert T. Clifton, superintendent; present equipment, 4160 spindles and 210 looms.

VIRGINIA.

Big Stone Gap—Coal Mining.—Calvin Pardee, 425 Drexel Building, Philadelphia, Pa., has purchased 2500 acres of land on Roaring fork of Powell's river. This was recently referred to as a rumor.

Danville—Tobacco Company.—Dibrell Bros. have been incorporated with a capital stock of from \$25,000 to \$50,000; R. L. Dibrell, president; H. L. Barksdale, vice-president.

Emporia—Cotton Mill.—It is reported that the Emporia Cotton Mills will enlarge its plant and develop additional water-power where it has 3500 horse-power available.

Esmont—Flour Mill, etc.—John E. Lane, Henry L. Lane, James A. Brailey and Edward B. Harris, all of Esmont, and Edward W. Scott of Warren, Va., have incorporated the Green Mountain Milling Co., with a capital stock of \$25,000, for the purpose of operating flour and other mills. The company will ask for bids on machinery and start work of construction of plant in about a week.

Harrisonburg—Electric Plant and Water-power Development.—The city has awarded contract to Lane Bros. & Co. for the construction of dam, raceway and wheel pit on the Shenandoah river embraced in the plans for the municipal electric-light and power plant referred to in the issue of May 19 as to be constructed at an estimated cost of \$50,000 to \$55,000, and for which \$60,000 of bonds is available.

Marion—Saw-mill.—The U. S. Spruce Lumber Co. will erect double band and resaw mill with a yearly capacity of 30,000,000 feet.

Norton—Coal Lands.—It is reported the Virginia Oil & Mineral Co., Inc., has purchased and will develop about 1500 acres of coal lands on Black mountain.

Petersburg—Locomotive-spark Extinguisher.—J. W. Bryant of Crewe, Va., has organized and incorporated the Bryant Locomotive Spark Extinguisher Co., with a capital stock of \$50,000, to manufacture patented locomotive-spark extinguisher.

Portsmouth—Mantel and Grate Factory.—The Southern Mantel & Grate Manufacturing Co., W. G. Melvin, president, has secured site and will erect plant.

Relief—Telephone Company.—The Frederick & Shenandoah Telephone Co. has been incorporated to construct telephone line from Mt. Olive to a point near Manchester; Isaac Funkhouser, Lebanon Church, Va., president; I. A. Graves, Relief, Va., vice-president; E. R. McDonald, Mine Bank, Va., secretary.

South Hill—Land Improvement.—The South Hill Improvement Corporation has been incorporated with a capital stock of \$25,000 to \$50,000.

Suffolk—Lumber Dry-kiln.—E. L. Folk & Co. will establish dry-kiln with a daily capacity of from 10,000 to 15,000 feet of oak flooring.

Wilson's—Heading Factory.—J. C. Hawthorn and John Crowe will erect heading mill. It is reported that work has begun and some of the machinery installed.

WEST VIRGINIA.

Belington—Iron and Steel Manufacturing Chartered: The Broomall Iron & Steel Co., with a capital stock of \$300,000, for manufacturing iron and steel; Incorporators, G. C. Broomall, T. C. Perrine, W. P. Edmundson and P. J. Boerman of Pittsburgh, Pa., and S. M. Noah of Weston, W. Va.

Clarksburg—Brick Plant.—The Glen Elk Brick Co. will rebuild plant recently destroyed by fire at a loss of \$6000.

Grafton—Stone Cement Works.—Chartered: The Grafton Stone Cement Co., capitalized at \$10,000, for manufacturing stone cement and other building materials; Incorporators, W. H. Bailey, Walter L. Tibbets, Thomas B. Ramsey, J. H. S. Barlow and others.

Martinsburg—Limestone Lands.—P. J. Courtenay of Philadelphia, Pa., representing a syndicate of Pennsylvania steel and iron men, has purchased about 900 acres of limestone land in Berkeley county, which will be developed.

Milton—Oil Wells.—The Harshbarger Oil & Gas Co. and the Cabell Oil & Gas Co. have consolidated under the former's title, with capital stock of \$600,000, and will continue the companies' various oil and gas properties in the West Virginia fields. George F. Miller is president, and G. W. Harshbarger, secretary.

Morgantown—Coal Mining and Coke Manufacturing.—W. A. Stone, Albert Gliddis, Samuel W. Jones, B. V. Jones, Harry B. Gans and William L. Gans of Uniontown, Pa., have incorporated the W. A. Stone Coal & Coke Co. with a capital stock of \$100,000.

Parkersburg—Land Improvement.—Chartered: The Interstate Improvement Co., with capital stock of \$5000, for improving real estate, etc., by C. F. Teter of Philippi, W. Va.; W. E. Strathers of Clarksburg, W. Va.; O. H. Suck of St. Marys, W. Va., and others.

Parkersburg—Plate-glass Plant.—H. H. Patterson & F. S. Brockett, both at 1308 Farmers' Bank Building, Pittsburgh, Pa., can give information regarding the organization of the Colonial Glass Co., which has decided to organize, with a capital of \$200,000, to establish plate-glass plant at Parkersburg to employ 225 hands. It is the intention of the company to increase capacity from time to time.

Parkersburg—Pottery.—F. W. Fowler, 626 Farmers' Bank Building, Pittsburgh, Pa., will organize and incorporate the Parkersburg Pottery Co., with a capital stock of \$200,000, to build seven-kiln pottery. Main building will be 270 feet by about 500 feet, two stories high, built of brick and concrete.

Parsons—Natural-gas Mains.—The West Virginia Central Gas Co. has applied for charter to lay pipes and mains through the streets for supplying natural gas.

Sistersville—Machinery Works.—The Sexton Machine Co. has been incorporated, with capital stock of \$10,000, for manufacturing machinery, by M. Sexton, Thomas Chestnut, James Henegan, E. A. Ryan and D. E. Saunders.

St. Albans—Natural-gas Mains.—J. D. Northrop and associates received franchise, referred to last week, for laying mains and piping natural gas through the streets.

INDIAN TERRITORY.

Chickasha—Investment.—D. S. Hill, D. S. Wolfinger, S. A. Holcomb and S. H. Babcock have incorporated the Central Investment Co. with a capital stock of \$60,000.

Muskogee—Foundry, etc.—The Southwest Distributing & Jobbing Co. has been organized by Cole Younger and associates, with capital stock of \$25,000, and will establish foundry for manufacturing carbon burners, etc.

Poteau—Development Company.—W. Lowry, James W. and J. L. Hale have incorporated the Arkansas & Choctaw Development Co. with a capital stock of \$100,000.

Savanna—Coal Mines.—Incorporated: The Savanna-McAlester Coal Co., with capital stock of \$25,000, for mining coal, by James Degnan, L. W. Bryan, W. E. Hallie and James McConnell.

Wilburton—Telephone System.—Schooler Bros. Telephone Co. will construct telephone system, investing about \$50,000 in the enterprise.*

OKLAHOMA TERRITORY.

Cashion—Grain.—G. C. Marriott and W. B. Pettit of Cashion, H. A. Reynolds of Kingfisher, O. T., and others have incorporated the Cashion-Lockridge Grain Co. with a capital of \$10,000.

Davidson—Cotton Gin.—The Farmers' Gin Co. reported last week as incorporating with a capital of \$6000, will erect cotton gin 20x63 feet, to have a capacity of 50 bales; J. W. Callahan, architect, and W. L. Williams, engineer in charge.

Hobart—Cotton Ginnery.—W. W. McGilvery, G. B. Hughes, D. T. Fitzgerald and J. T. Ratcliff, all of Hobart; J. B. Tesh and Z. W. Green of Roosevelt, O. T., and T. J. Wright of Lone Wolf, O. T., have incorporated the Kiowa County Gin Co. with a capital of \$12,000.

Lawton—Ginning and Manufacturing.—J. W. Martin, W. M. Howe, J. S. Spence and J. R. Wallace have incorporated the Merchants' Gin & Manufacturing Co. with a capital of \$10,000.

Oklahoma City—Oil Wells.—Guy E. Blackwelder, S. I. Wellman and W. F. Wilson of Oklahoma City, J. J. Bauman and A. G. Chaloupka of St. Louis, Mo., have incorporated the Banner Oil Co. with a capital stock of \$2,000,000.

Oklahoma City—Electric and Gas Plants.—The Oklahoma Gas & Electric Co. has engaged H. M. Bylesley & Co. of Chicago, Ill., as engineers in charge of extensive improvements to be made to the company's gas and electric plants.

Oklahoma City—Electric-light and Gas Plant.—The Oklahoma Gas & Electric Co. is preparing to make extensive improvements to its plant, and has engaged H. M. Sylesley & Co., New York Life Building, Chicago, Ill., as engineers in charge.

Pawhuska—Farming.—W. M. Dial of Pawhuska, E. F. Sparrow and J. E. Freeney of Oklahoma City, O. T., have incorporated the Dial-Baker Company with a capital stock of \$25,000.

Ponca—Oil Wells.—O. R. Boggs and A. W. Shultz of Independence, Kan., and John N. Florer of Gray Horse, O. T., have incorporated the Kessage Oil Co. with a capital stock of \$120,000.

Rocky—Cotton and Grain.—T. J. Wilburn, J. F. Brown, I. J. Burson, J. I. Denison and others have incorporated the Farmers and Merchants' Cotton & Grain Co. with a capital of \$7000.

Watonga—Cotton Gin.—James Team of Oklahoma City, O. T., will rebuild cotton gin recently burned at a loss of \$4000.

Wellston—Oil and Gas Wells.—R. L. Balyeat, G. L. Thompson, A. M. Haverstock, Lulu Fisher and John Body have incorporated the Central Oil & Gas Co. with a capital stock of \$1,000,000.

BURNED.

Alden's Bridge, La.—Saw-mill of White & Wheless; loss about \$100,000.

Baltimore, Md.—Street & Corkran's pork-packing plant at 2812 to 2818 Pennsylvania avenue; loss about \$175,000.

Brownell, Texas.—Kirby Lumber Co.'s saw-mill.

Cameron, Texas.—J. D. Barron's gin; loss \$300.

Cartersville, Ga.—Cherokee Ochre & Barytes Co.'s mill; loss about \$10,000.

Greenville, Texas.—Texas Cotton Products Co.'s round-bale plant; loss \$4000.

Hartsville, Tenn.—Troupdale county courthouse, loss \$10,000; Mrs. Allen's hotel, loss \$5000.

Jackson, Tenn.—Boone Bros.' carriage plant; loss about \$12,000. Building was owned by W. T. Nelson and was valued at \$6000.

Jacksonville, Texas.—Sprull & Braly's blacksmith and wagon shops; loss \$3000.

Lindale, Texas.—Smith County Brick Co.'s plant near Lindale; loss \$8000.

Memphis, Tenn.—Office and warehouse of the Memphis Furniture Manufacturing Co.; loss about \$40,000.

Milledgeville, Ga.—Planing mill of F. J. Stembler; loss about \$12,000.

Raleigh, N. C.—George Harden's livery stable, loss \$3000; W. A. Myatt's warehouse, loss \$2000.

Waco, Texas.—Store building of L. W. & John N. Sturgiss; damage about \$5000.

Watonga, O. T.—Cotton gin of James Team of Oklahoma City, O. T.; loss \$4000.

BUILDING NOTES.

* Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery, Proposals and Supplies Wanted."

Alexandria, La.—Hospital.—W. W. Whittington, Jr., secretary Board of Administrators, will receive bids until September 24 for the construction of two brick main buildings, 36x180 feet, three stories high, and one brick water closet, 16x30 feet, three stories high; plans and specifications on file at the office of the secretary. Bids must be accompanied by a certified check for 5 per cent. of the amount of bid; usual rights reserved.

Ardmore, I. T.—Elks' Hall.—The Elks' association will erect three-story brick and stone building after plans and specifications by T. W. Myall & Co., architects. It is stated that bids for construction have already been submitted.

Athens, Ga.—Hotel.—J. W. Golucke & Co. of Atlanta, Ga., will prepare plans and specifications for the Athens Hotel Co.'s proposed hotel; structure to be six stories high, fire-proof, buff brick, terra-cotta, stone, modern conveniences; to be erected by day labor; cost to be about \$100,000. Address H. J. Rowe of the company.

Atlanta, Ga.—Crematory Building.—The city has issued permit for the erection of frame building which is to surround the crematory. Building will be constructed after plans and specifications by E. C. Seitz, architect, and will cost \$8500.

Atlanta, Ga.—Masonic Temple.—The Masonic Temple Co. has appointed Hoke Smith, John R. Wilkinson and others a committee to confer with Thomas Morgan, architect, regarding plans and specifications for the erection of temple building.

Barton Heights, Va.—School Building.—The Barton Heights Citizens' Association is endeavoring to raise funds for the erection of school building. Dr. R. H. Pitt is interested.

Barton Heights, Va.—Hall.—John E. Rose, H. L. Lorraine, W. L. Ragland and others will organize the Barton Heights Town Hall Co. to erect hall to cost \$10,000.

Bristol, Tenn.—Store and Office Building. The First National Bank will soon ask for bids for the erection of two-story store and office building. Structure will be 61x54 feet, of brick and structural iron with stone trimmings. Lower floor will be utilized for store space and the upper floor for offices.

Brunswick, Ga.—Store Building.—R. E. Briesenick will erect two-story brick building.

Culbourn, Ga.—Warehouse.—H. A. Dover will erect large warehouse. It is reported that work has already begun.

Cameron, Texas—Church.—The Catholic congregation will erect church building to cost \$6000. Father Bleneman is the pastor.

Carteraville, Ga.—Church.—Baptist church, Rev. J. R. Barnard, pastor, will build brick and stone edifice to cost \$25,000. J. W. Golucke & Co., Atlanta, Ga., are preparing plans and specifications.

Chattanooga, Tenn.—Church.—The Southern States Mission of Latter Day Saints will erect church building to have a seating capacity of 600 or 700. Ben E. Rich is president of the Mission.

Chattanooga, Tenn.—Warehouse.—C. E. James has purchased site at \$12,000 for the erection of a warehouse to be five stories high, costing about \$25,000, and for which plans and specifications are now being prepared.

Cisco, Texas—Theater.—Incorporated Cisco Opera House, capitalized at \$5000, by A. L. Maybaw, Averen Maybaw and others.

Cordele, Ga.—Business Block.—J. A. Harmon of Waycross, Ga., has had plans prepared and will let contract in a few days for the construction of brick building.

Cordele, Ga.—City Hall.—The city has received and probably will adopt plans by Lockwood Bros., architects, Columbus, Ga., for remodeling the opera-house block for municipal uses. Bids for construction work will be asked for in a few days. Address The Mayor.

Dallas, Texas—Dwelling.—C. C. Barber will erect large residence building.

Dallas, N. C.—Bank Building.—The Dallas Bank, L. L. Jenkins, president, Gastonia, N. C., has commissioned Hook & Sawyer of Charlotte, N. C., to prepare plans and specifications and erect two-story brick building, 50x100 feet, to cost \$20,000. This building referred to last week.

Elkins, W. Va.—Courthouse.—Lee Crouch, clerk of County Court for Randolph County, will receive bids until September 26 for the erection of courthouse after plans and specifications now on file at the office of the clerk of Randolph County Court and office of J. Charles Fulton, Uniontown, Pa. Usual rights reserved.

Fairfax, Va.—Bank Building.—The National Bank of Fairfax has awarded contract to O. B. Campbell and A. Thompson, both of Fredericksburg, Va., for the erection of banking building to cost \$5000.

Fayetteville, W. Va.—Office Building.—Dr. Malcolm has awarded contract to Antonio Janutolo of Kay Moor, W. Va., for the erection of office building two or three stories high, 30x60 feet; upper floors for offices; ground floor for banking, with modern fire-proof vault; cost to be about \$6000.

Fort Gaines, Ga.—School Building.—J. W. Golucke & Co., Atlanta, Ga., will prepare

plans and specifications for the proposed public-school building to cost about \$20,000; will build by day labor. Address W. B. Greyham.

Gainesville, Texas—Postoffice Building.—F. L. Stevenson of Dallas, Texas, has secured contract for the erection of postoffice building to be located on California street. Structure will cost about \$80,000.

Galveston, Texas—Store Building.—C. W. Bulger, architect, is preparing plans and specifications for store building to be erected for the Fellman Dry Goods Co. Structure will be 43x120 feet; five stories high; of light-colored brick with terra-cotta trimmings; mill construction; steel beams and girders; terra-cotta cornices; elevators, etc.; estimated cost \$40,000.

Graceville, Fla.—Hotel.—A company is being organized with S. F. Sharpless, president, to build hotel of 40 rooms. Plans and specifications are solicited.

Haskell, Texas—School.—The School Trustees of Haskell have let contract to Dallas contractors for the erection of school building. Structure will be of fireproof construction, two stories high, of cement blocks and equipped with hot-air heating system. Contract price is \$12,640.

Hochiston, Ga.—School Building.—The city will issue bonds for the purpose of erecting school building to cost \$10,000. Address The Mayor.

Hot Springs, Ark.—Grand-stand.—Reports state that Z. Davis, 73 Dearborn street, Chicago, Ill., has awarded contract to the R. & S. Sollitt Company, 140 Dearborn street, Chicago, Ill., for the erection of a grand-stand and racing plant at Hot Springs to cost \$600,000.

Houston, Texas—Office Building.—J. L. Mitchell will erect three-story office building on Capitol avenue. Structure will be of brick, ornate in design, 50x94 feet; estimated cost \$10,000.

Hyattsville, Md.—School Building.—George N. Walker, contractor, has received contract to erect the proposed school building, his bid being \$10,498.

Jackson, Miss.—School Building.—J. R. Hobyns, secretary Board of Commission, will receive bids until September 26 for the erection of buildings for the Institution for the Deaf and Dumb by the State of Mississippi. Request for plans to be accompanied by certified check for \$25. Usual rights reserved.

Jacksonville, Fla.—Warehouse.—The Fitzgerald Company has secured permit for the erection of warehouse 50x150 feet.

Jefferson, Ga.—Methodist church's proposed edifice will be planned by J. W. Golucke & Co., Atlanta, Ga.; structure to be of brick and stone, costing \$16,000. Address H. W. Bell.

Jonesville, Va.—Jail.—The Board of Supervisors of Lee county have appropriated money to build jail to cost about \$10,000.

Kansas City, Mo.—Fire Houses.—The city will build a fire station on South Flores street and contemplates the erection of large building at some central location. Address The Mayor.

Kansas City, Mo.—Business Building.—The Roach & Kienzle Sash & Door Co. will erect two-story building 20x75 feet, to cost \$17,500.

Kansas City, Mo.—Barn.—S. E. Edwards, superintendent of buildings, will prepare plans and specifications for barn and workshop to be located at Second and Main streets to cost \$16,000.

Kansas City, Mo.—Business Building.—L. N. Leslie, New York Life Building, will erect four-story brick and stone building to cost from \$30,000 to \$40,000. Plans and specifications have not been prepared.

Lafayette, Ga.—Jail.—J. W. Golucke & Co., Atlanta, Ga., have begun to prepare plans and specifications for the proposed \$20,000 fireproof jail. Address Clerk of Court.

Lexington, Ky.—Stable.—Hendricks Bros. & Co. have been awarded contract for the erection of Tattersall's stable to replace the one recently burned. Structure will be 450x56 feet, to accommodate 100 horses, and will cost \$12,000.

Lexington, Ky.—Tobacco Warehouse.—The Continental Tobacco Co. has awarded contract to Fairfax Bros. & Co. for the erection of tobacco warehouse. Structure will be two stories high, 15x205 feet, mill construction, gravel roof, iron cornice, etc.

Locust Grove, Ga.—School.—Locust Grove Institute has engaged J. W. Golucke & Co. of Atlanta, Ga., to furnish plans and specifications for proposed brick and stone \$25,000 building. Address Prof. Claude Gray.

Louisville, Ky.—Warehouse.—The Rugby Distillery at 30th street and Missouri avenue will erect warehouse to have a capacity of 15,000 barrels at a cost of \$20,000. J. J. Gaff-

ney is the architect. It is reported that work has already begun.

Louisville, Ky.—Armory Building.—As reported last week, Brinton B. Davis of Paducah, Ky., has been commissioned to prepare plans and specifications for the construction of armory building. Structure will have a seating capacity of 10,000 and will cost about \$250,000.

Marietta, Ga.—Residence.—Mrs. C. W. Du Pre will build residence after plans and specifications by J. W. Golucke & Co., Atlanta, Ga.; cost to be \$10,000.

Marietta, Ga.—Dwelling.—E. N. McNeal will build dwelling to cost \$15,000 after plans and specifications by J. W. Golucke, Atlanta, Ga.

Maysville, Ky.—Infirmary.—The Mason Fiscal Court has ordered a special election to vote on issuing \$25,000 bonds toward the erection of an infirmary which the city and county propose building.

McDonough, Ga.—Church.—Plans for edifice for Methodist church are being prepared by J. W. Golucke & Co., Atlanta, Ga.; structure to be of brick and stone, costing about \$20,000. Address Rev. Mr. Edmondson, pastor.

Miami, Fla.—Business Block.—John W. Roth has purchased property on 12th street east of the Metropolis Building and will erect two-story brick block containing storerooms and offices.

Moberly, Mo.—Government Building.—Geo. E. Hopper of Arkansas City, Kan., is the lowest bidder at \$35,000 for the construction of building which the United States government will erect at Moberly.

Monticello, Fla.—Cotton Warehouse.—Mays & Partridge have awarded contract to Geo. D. Shaw for construction of warehouse 60x140 feet after plans by himself. Building will have iron siding and metal roof.

Nashville, Tenn.—Dwelling.—E. R. Dabney has secured permit for the erection of 10-room brick residence.

Nashville, Ga.—School Building.—J. W. Golucke & Co., Atlanta, Ga., are preparing plans and specifications for the proposed school building to cost about \$15,000; brick and stone. Address J. D. Lovett.

Newman, Ga.—Courthouse.—J. W. Golucke & Co., Atlanta, Ga., will furnish plans and specifications for proposed courthouse to cost about \$80,000. Address W. L. Stallings, clerk.

New Orleans, La.—Exchange Building.—The Board of Trade, Fred Muller, secretary, recently sold its office building for \$60,000, and will use the money for making extensive improvements to its Exchange building.

Newroads, La.—Church.—The H. Koerner Construction Co. of Lake Charles, La., has secured contract for the erection of church building for the Catholic congregation. Structure will be 115x250.2 feet, 23.6 feet high, of brick, gothic architecture, ordinary construction; cost \$18,600. This building mentioned last week.

Norfolk, Va.—Office Building.—Further details have been obtained concerning the National Bank of Commerce Building to be erected by the Commercial Realty Corporation, after plans and specifications by Parker & Thomas, architects, of Boston, Mass., and 612 North Calvert street, Baltimore, Md. Structure to be 12 stories high with basement, 4.8x135.1 feet; granite base; terra-cotta to second story; brick with ornamental terra-cotta trimmings for remaining stories; concrete foundation; steel frame; fireproof construction; slag roofing; galvanized-iron cornice and coping; fireproof vaults; skylights; bronze doors and grill work; electric wiring and fixtures; sanitary plumbing; steam-heating system; three passenger elevators; one freight elevator; complete electric generating plant. Among the contractors selected to bid on the construction who have offices in Baltimore, Md., are A. J. Robinson Company, 30 West Franklin street; Wells Bros. Company, 344 North Charles street; James Stewart & Co., 319 North Charles street; F. B. Gilbreth, 211 North Liberty street, and the George A. Fuller Co., 203 North street. Plans and specifications were distributed from the Boston office of the architects.

Owings Mills, Md.—Sanitarium.—R. C. Boone, 522 Falls road, Baltimore, Md., has secured contract for the erection of building for the Home of the Feeble-minded. Structure will be of stone and brick, three stories high, and will cost \$15,000.

Paducah, Ky.—Market-house.—Board of Public Works, S. A. Fowler, secretary, will receive bids until September 16 for the erection of market-house building in accordance with plans and specifications by William L. Brainard, architect. Plans and specifications on file at the office of the Board of Public Works and architect's office. Certified check for \$250 to accompany each bld. This build-

ing, recently referred to, will be 300x35 feet; brick columns and sides; white glazed inside; buff or red pressed outside; connected with steam-heat pipes under street; electric-light fixtures; estimated cost \$25,000.

Paducah, Ky.—Hospital.—The city has awarded contract to William Karnes at \$22,000 for erection of the proposed municipal hospital building.

Richmond, Va.—Apartment-house.—Carl Ruehrman, architect, has prepared plans and specifications for an apartment-house to be erected at Allen avenue and Grace street for Mrs. J. B. Kidd. Structure will be 40x108 feet, four stories high, first story to be of cement construction and upper stories to be faced on three sides with pressed brick, stone and terra-cotta trimmings, equipped with gas and electrical fixtures, sanitary plumbing, heating system, etc. This building mentioned last week.

Saluda, S. C.—Church.—The Lutheran congregation has let contract to J. C. Wise for the erection of church building to front 40 or 50 feet on Calhoun street. There will also be an annex 30x40 feet for Sunday-school purposes.

San Angelo, Texas—Bank and Office Building.—The San Angelo Improved Realty Co. will receive bids until September 5 for the erection of bank and office building for the First National Bank of San Angelo after plans and specifications by Oscar Ruffini, architect, at whose office they are on file; bids to be accompanied by certified check for \$500; usual rights reserved. This building referred to last week.

San Antonio, Texas—Theater.—C. R. McAdams, manager Cycle Park Theater, Dallas, Texas, and C. E. Magee of Winchester, Ind., contemplate the erection of summer theater.

Savannah, Ga.—School Building.—The Benedictine Order of Georgia will erect building to be used for college purposes. Structure will be of brick, 60x100 feet, two stories high on an 11-foot basement; steam-heating system; electric-light fixtures, etc. Rev. F. Michael, Belmont, N. C., prepared the plans.*

Savannah, Ga.—Bank Building.—The National Bank of Savannah has decided to erect 10-story structure instead of five, as was contemplated for a time. Structure will be of Georgia marble in the lower stories and brick and terra-cotta in the upper ones, equipped with all modern improvements. Bids will be opened about October 1, and may be asked for on both the five and 10-story structure. W. H. Witcover is the architect. This building previously mentioned.

Shelbyville, Tenn.—Hotel.—S. J. McGraw will erect modern hotel, and has begun work of construction.

Spartanburg, S. C.—Church.—The Lutheran congregation, S. T. Hallman of Newberry, S. C., pastor, will erect church building on Converse street.

Summit, Ga.—Bank Building.—Dr. Jones contemplates the erection of building for banking purposes.

Sylvester, Ga.—Courthouse and Jail.—J. W. Golucke & Co. of Atlanta, Ga., are architects for the modern courthouse and jail mentioned last week, and contracts for erection will be opened on September 5; structure to cost about \$75,000. Address Chairman of Board of County Commissioners.

Tallapoosa, Ga.—Warehouse.—George W. Sheppard will erect warehouse 80x100 feet, to have metal roof and corrugated-iron siding.

Tuscaloosa, Ala.—Jail.—The city has decided to build a municipal jail. Address The Mayor.

Warrenton, Ga.—Church.—W. C. English, chairman of Building Committee, Methodist church, has engaged J. W. Golucke & Co., Atlanta, Ga., to prepare plans and specifications for erection of edifice of brick and stone to cost about \$18,000.

Washington, D. C.—Society Building.—Plans and specifications have been distributed by Edw. P. Casey, architect, 1 Nassau street, New York, for building for the National Society of the Daughters of the American Revolution. Structure to be three stories high with basement; marble exterior; concrete foundation; steel-frame fireproof construction; copper roofing and skylights; electric wiring and fixtures; sanitary plumbing; steam-heating system; power elevators. Among the contractors who are estimating on the construction who have offices in Baltimore, Md., are A. J. Robinson Company, 30 West Franklin street, and James Stewart & Co., 319 North Charles street. Bids to be in August 31.

Washington, D. C.—Dwelling.—J. E. Braithwaite has awarded contract to John F. Boyle, Canal Road, D. C., for the erection of dwelling at 3019 Irving Place, after plans and specifications by Julius Wenig, architect, 655 New York avenue. Building will be of

ordinary construction, 15x35 feet, equipped with furnace-heating system, gas fixtures, etc., and will cost about \$5000. This building mentioned last week.

Washington, D. C.—Store.—Lawrence Mangan has awarded contract to B. L. Kemp, 1623 L street N. W., for the construction of store building at 1619 L street N. W. after plans and specifications by Julius Wenig, architect, 655 New York avenue. Structure will be 25x70 feet, equipped with hot-water heating system, gas fixtures, etc., and will cost \$10,000. This building referred to last week.

Washington, D. C.—Marine Barracks.—Addition to barracks of the United States Marine Corps will be erected at Washington, D. C., after plans and specifications by Hornblower & Marshall, architects, 1509 H street N. W.; structure to be two stories high with basement, 35.7x292.1 feet, brick with granite base and trimmings, concrete foundation, steel beams and girders, reinforced concrete floors, slate roofing, stone stairways, electric wiring and fixtures, sanitary plumbing, heating system. The Charles A. McCaul Company, builder, 123 West Saratoga street, Baltimore, Md., is estimating on the construction.

Wynne, Ark.—Courthouse.—John Graham, chairman Board of Building Commissioners, will receive bids until September 27 for the erection of courthouse after plans and specifications now on file in the office of the Bank of Wynne, Wynne, Ark., and also in the office of the Bruce Architectural Co., Birmingham, Ala. Bids to be accompanied by certified check for \$3000. Usual rights reserved.

RAILROAD CONSTRUCTION.

Railways.

Athens, Texas.—The Athens Loan Agency writes the Manufacturers' Record that its

Cliffside, N. C.—The Rutherford Railway & Power Co. is building a railroad six or seven miles long from Cliffside to connect with the Seaboard Air Line between Carooleen and Henrietta. B. D. Heath of Charlotte is president; R. R. Haynes of Cliffside, secretary and treasurer, and John M. Scott of Charlotte, traffic manager. W. C. Heath of Monroe is also interested.

Corpus Christi, Texas.—Johnston Bros., general railroad construction contractors, write the Manufacturers' Record that they have closed a contract to build the proposed extension of the St. Louis, Brownsville & Mexico Railway from Robstown to Bay City, 142 miles. The subcontract for grading has been let to Johnston & Read; for tracklaying, bridges and buildings to the McCabe & Steen Construction Co., and for the masonry to the Hedges-Gosney Construction Co., with headquarters at Corpus Christi. Construction is to commence at once; chief engineer, F. G. Jonah, at Corpus Christi.

De Queen, Ark.—The De Queen & Eastern Railway Co. is reported to be making a survey across Howard county a few miles north of Centre Point. Herman Dierks is vice-president and general manager.

Eagle Mills, Ark.—President D. S. Gates of the Freeo Valley Railway is reported as saying that grading is under way from Eagle Mills to Princeton, 23 miles, and that track has been laid for two miles. The contractors are Pope Bros. of Camden, Ark., and W. H. Kimball of Davenport, Iowa, is chief engineer.

El Paso, Texas.—The Santa Fe Central Railway or Denver Short Line has organized with C. B. Morehead, president, and A. B. Fall, general attorney. A preliminary survey is being made for an extension of 100 miles from Torrance, N. M., to El Paso.

Fayetteville, N. C.—It is reported that an electric railway will be built from Fayette-

time ago in Oklahoma, has also obtained a charter in Texas for a route from Lake West, on the Red river, in Fannin county, to Henderson, 125 miles. The incorporators are P. W. Bean, A. C. Springs, Kansas City, Mo.; M. C. Wolfe, Wolfe City; J. W. Davidson, Canton, Van Zandt county; J. A. Underwood, E. E. Blocker, W. S. Evans, Honey Grove; J. T. Larue, R. P. Wofford, Athens, Texas.

Little Bay, Ark.—President W. T. Murray, who is also general manager of the Little Bay & Hampton Railroad, recently chartered, is quoted as saying that it will build 21 miles of line from Little Bay via Gordons and Woodberry to Hampton, Ark. Track has been laid as far as Woodberry. The other officers are: H. M. McLachlin, vice-president, Paola, Kan., and L. N. Smythe, secretary and treasurer, Little Bay, Ark.

Marlinton, W. Va.—The Campbell Company is reported to have completed grading on the Marlinton & Camden Railroad from this place to John Young's, and the line is expected to be in operation by the middle of October.

Memphis, Tenn.—Plans for a railroad to be called the Clarksdale & Friars Point, 14 miles long, are reported under way. James F. Hunter, general manager of the Tennessee Trust Co., may be able to give information.

Monterey, Va.—It is reported that a lumber railroad is to be built from Covington, on the Chesapeake & Ohio Railway, up the Bull Pasture river. John Armstrong of this (Highland) county may be able to give information.

Morgantown, W. Va.—Reported that the Morgantown & Kingwood Railroad will be extended from Masontown via Reedsville, Albrightsville and Cheat river to Rowlesburg, about 15 miles. F. K. Brett is general manager.

Nashville, Tenn.—The Nashville Terminal Co. (Tennessee Central) has been granted the right by the city council to build a spur to reach various industrial plants. W. N. McDonald is chief engineer.

New Decatur, Ala.—Mr. W. R. Hall of the North Alabama Traction Co. writes the Manufacturers' Record that there is scarcely any probability of anything being done in the immediate future, if at all, towards building the talked-of line to Trinity mountain.

New Orleans, La.—Referring to the report that the company would build a 20-mile extension, Mr. Jules Godchaux, general manager of the Franklin & Abbeville Railway, writes the Manufacturers' Record that its construction will not begin until early in 1905. The new work will be from the present connection with Morgan's Louisiana & Texas Railroad to Bayou Vermillion or Hunters canal, at Milton postoffice. It is ultimately proposed to continue the line and meet Morgan's Louisiana & Texas Railroad between Lake Charles and Lafayette.

Norfield, Miss.—The Natchez, Columbia & Mobile Railway is reported to be building an extension from Booneville to Pearl river, seven and one-half miles. R. B. Butterfield is general manager.

Philadelphia, Pa.—Reported that the Southern Construction Co., with office in the Land Title Building, will let contracts soon for building 18 miles of the proposed Overton County Railroad from a connection with the Tennessee Central Railroad to Livingston, Tenn., for which surveys have been made. P. Armitage, 3700 Locust street, Philadelphia, is chief engineer. The headquarters of the railroad are at Livingston, Tenn.

Portsmouth, Va.—It is reported from Sarasota, Fla., that the Seaboard Air Line will build a four-mile extension to Fruitville. W. W. Gwathmey is chief engineer at Portsmouth.

Raleigh, N. C.—Mr. William Moncure, president of the New Hope Valley Railroad, writes the Manufacturers' Record that a contract for three miles of line has been let to Ferrel & Noe of Pittsboro, N. C., and will be completed about November 1. Other work will be let in September.

San Antonio, Texas.—The San Antonio & Gulf Railroad is reported to be considering a plan to build an extension from Stockdale via Smiley to Cuero, about 45 miles. E. E. Shadwick is general manager.

Sedgwick, Ark.—The Cache Valley Railway is reported to be making an extension from Iris to Light, seven miles, as well as from Walnut Ridge to Paragould, 27 miles.

St. Louis, Mo.—According to a dispatch from Mobile the Frisco system will build a line direct from New Orleans to connect with the Mobile, Jackson & Kansas City Railroad, which, rumor says—in spite of denials—that the system has acquired. Such a line would be about 120 miles long. J. F. Hinckley is chief engineer of construction, 800 Fullerton Building, St. Louis.

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Baltimore, Md., July 30, 1904.

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Gentlemen—We find the reports of building operations as published in the MANUFACTURERS' RECORD of great value to us, both as to reliability and completeness.

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proposed railroad will be from New Braunfels via Seguin, 15 miles; to Wells Plantation, 12 miles farther; to Gonzales, 18 miles more; total 45 miles. Part of the capital subscribed is local and the rest is promised from Chicago. No bids for construction or material are desired.

Birmingham, Ala.—The Birmingham Belt Line will, it is reported, complete within three weeks its three-mile extension at North Birmingham. All the grading is done and some rails have been laid. This is the extension which may be later continued to Thomas.

Birmingham, Ala.—Mr. W. C. Ambrose, chief engineer of construction of the proposed Birmingham, Montgomery & New Orleans Railway, informs the Manufacturers' Record that the work is delayed and that the contracts will be let about October 1.

Cambria, Va.—John R. Wilson, general manager of the Virginia Anthracite Coal & Railway Co., writes the Manufacturers' Record saying that he knows nothing about any plan to build an extension from Blacksburg to New Castle mentioned in a recent press report.

Catlettsburg, Ky.—The Miller's Creek Railroad Co. of this (Boyd) county has been incorporated to build a line 16 miles long up Johns creek, in Johnson county.

Charleston, W. Va.—The Imboden & Odell Railroad Co. is reported to have graded 22 miles up Blue creek, and tracklaying is to begin soon. C. P. Peyton is chief engineer.

Central City, Ky.—The Kentucky Midland Railroad Co. has been incorporated to build a line from Central City to Madisonville, 26 miles. This is probably the line reported as being backed by the Oregon Coal Co., which has holdings near Earles Postoffice, five miles from Madisonville, a survey for the road having been completed. The directors are as follows: P. J. Jennings, R. J. Jennings, Ed. Tranholde, B. E. Wood and J. Erb.

ville to connect with various cotton mills nearby. H. L. Cook may be able to give information.

Galveston, Texas.—Col. L. J. Polk of Galveston is reported as saying that his proposed railroad plan is to build from San Antonio, Texas, south about 220 miles to Rio Grande City, on the Rio Grande, or to a point near there, connecting with the Mexican National Railroad.

Greenville, Miss.—Capt. W. W. Stone writes the Manufacturers' Record about the Delta Southern Railroad, recently incorporated, saying that bids are requested for the construction of line from Elizabeth, Miss., for a distance of 10 miles northward, the work to be completed in 90 days. The Percy branch of the Southern Railway will constitute part of the road from Leland to Percy. The incorporators of the Delta Southern are D. S. McMullin, Chicago; Joshua Skinner and W. W. Stone of Greenville, Miss., and others. The terminal of the line will be Kuhn, on Bayou Pholla, in Bolivar county, and Campbellsville, on the lower Sunflower river, in Yazoo county.

Harrison, Ark.—The Arkansas Traction Co., which proposes to build an electric railroad about 30 miles long from Harrison to Dodd City, would, it is reported, like to hear from financial people, contractors and others about construction. Thomas Helm is president.

Houston, Texas.—Mr. W. S. Delery of W. S. Delery & Co., civil engineers and general contractors, writes the Manufacturers' Record that four miles of line are to be constructed for the Peach River Railroad from Timber Station, on the Gulf, Colorado & Santa Fe Railway, to the midline on the Houston, East & West Texas Railway. R. W. Luttrell of Galveston, Texas, is chief engineer.

Kansas, City, Mo.—The Kansas City, Oklahoma & Houston Railway, chartered some

Union, W. Va.—The Monroe Central Railway Co. is organized with the following officers: Allan Caperton, president; J. W. Lynch, vice-president; W. H. Copeland, secretary, and B. C. Young, treasurer.

Versailles, Ky.—Engineers are reported surveying for an extension of the Louisville & Atlantic Railroad from Beattyville to Prestonsburg, about 70 miles. J. P. Amsden is president at Versailles. He writes the Manufacturers' Record that the company does not contemplate any immediate extension of its line.

Washington, D. C.—The Southern Railway is reported to be considering the possibility of building a branch from Itta Bena, Miss., to Belzoni, Miss., about 20 miles. W. H. Wells is engineer of construction.

Washington, D. C.—An officer of the Southern Railway informs the Manufacturers' Record that the company has not yet taken any definite action in regard to building the proposed line from Mobile Junction, Ala., to Bessemer, Ala.

Wilmington, N. C.—The Atlantic Coast Line will, it is reported, extend the Jacksonville & Southwestern Railroad in Florida from Newberry to Fort Fannin, about 20 miles. E. B. Pleasant is chief engineer at Wilmington.

Winfield, Kan.—Denver capitalists have, it is reported, proposed to build the Winfield & Southern Railroad, a projected line from Winfield via Maple City and Pawhuska, Okla., to Tulsa, I. T., 115 miles. W. C. Robinson of Winfield is president.

Woodville, Miss.—The Fort Adams, Woodville & Centreville Electric Railroad Co. has applied for a charter to build its proposed line connecting the three towns named in its title. It will be 34 miles long. The incorporators are C. M. Stricker, Fort Adams; W. H. Woods, L. T. Ventress, J. D. Cage, W. L. Ferguson, Woodville; James Cohen, Ashwood, and A. M. Shepard, Fort Adams.

Street Railways.

Anderson, S. C.—The Anderson Traction Co. will, it is said, build lines to connect all the cotton mills around the city.

Birmingham, Ala.—The Birmingham Railway, Light & Power Co. will immediately reconstruct the Highland Avenue line.

Bristol, Tenn.—The Bristol Belt Line Railway Co. will, it is said, make some important improvements. E. M. Walker is general manager.

Jacksonville, Fla.—The Atlantic-Pacific Street Railway & Surety Co. is reported chartered in New Jersey to take over and operate the North Jacksonville Street Railway. The incorporators are R. R. Robinson, D. J. Huger and Michael J. McTiernan of Jacksonville.

Kansas City, Mo.—The Metropolitan Railway will, it is reported, immediately rebuild its line on 15th street.

Newport News, Va.—The Newport News & Old Point Railway & Electric Co. is reported to be considering a proposition to build a mile and one-quarter extension to North Newport News.

Spartanburg, S. C.—The Spartanburg Railway, Gas & Electric Co. has, it is reported, authorized the issue of \$100,000 of 5 per cent. first-mortgage bonds and \$100,000 of second-mortgage 5 per cent. bonds. It is said that extensive improvements are contemplated.

Wheeling, W. Va.—The improvements projected by the Wheeling Traction Co., part of which are already under way, will, it is reported, cost about \$400,000. About two miles of extensions are planned, and new rails will also be laid. G. O. Nagle is superintendent.

Wheeling, W. Va.—The Wheeling & Elm Grove Railway, an electric line, is reported sold to a syndicate headed by John A. Howard. An extension is projected. Mr. Howard is now president, and W. C. Carle, secretary and treasurer. The other directors are Wm. C. Handlan and George Baird.

Nernst Lamp for Store Lighting.

Merchants and others who are interested in the proper lighting of stores by electricity will find pertinent information presented to them in "The Nernst Lamp for Store Lighting." This is a booklet which emphasizes the fact that the light given by a Nernst lamp is nearest daylight, and this is something of importance to be considered in all shops where the articles offered for sale need proper light on them in order that customers may select to entire satisfaction. Where colors are to be chosen the lighting is especially required. Send for a copy of the booklet, addressing the Nernst Lamp Co. at Garrison Place and Fayette street, Pittsburgh; 908 Pine street, St. Louis; 39 East Lake street, Chicago, or any of the other offices.

MACHINERY, PROPOSALS AND SUPPLIES WANTED.

Manufacturers and others in need of machinery of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery needed we will make their wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. The Manufacturers' Record has received during the week the following particulars as to machinery that is wanted.

Artificial-stone Machinery.—See "Concrete Building-block Machinery."

Asphalt Roller.—Harper Machinery Co., Park Row Building, New York, N. Y., wants prices on a five-ton asphalt roller.

Bakers' Machinery.—See "Confectioners' Equipment."

Belting.—See "Plow-works Equipment."

Belting.—See "Woodworking Machinery."

Beverage Formulas.—Joseph F. Vickery, 16½ Marietta street, Atlanta, Ga., wants formulas for making bottled soda waters, ginger ale and other soft drinks; also prices on flavoring extracts. See "Bottling Equipment."

Boiler.—Arkansas Rock Asphalt Co., Little Rock, Ark., wants good second-hand portable 30 to 40-horse-power boiler. See "Road Machinery."

Boiler Specialties.—Barataria Canning Co., Biloxi, Miss., is in the market for shaking grates.

Boilers.—Anderson & Moser, Tampa, Fla., want to correspond with manufacturers of stationary boilers. See "Electrical Outfits."

Boilers.—S. W. Shoop & Co., Front Royal, Va., are in the market for two 40-horse-power return-tubular boilers, complete with stack and fittings. See "Hoisting Equipment."

Bottling Equipment.—Joseph F. Vickery, 16½ Marietta street, Atlanta, Ga., wants catalogues, circulars and prices on Crown bottling machines, bottle-washers, Crown stoppers, Crown bottles, bottle hand and shipping cases. See "Beverage Formulas."

Box and Crate Machinery.—L. F. Verdery & Co., North Augusta, S. C., want prices on box and crate machinery.

Brick Machinery.—Thomas A. Davis, Umatilla, Fla., wants to correspond with makers of brick machinery regarding the purchase of equipment for plant.

Brick Machinery.—See "Concrete Building-block Machinery."

Brick Machinery.—See "Clay-working Machinery."

Bridge and Abutments.—L. C. Williams and J. O. Thomas, Richwood, W. Va., will receive bids at the mayor's office until September 17 for the construction of steel bridge over Cherry river, with abutments and fills for the abutments, separate bid for steel work being required from bid for approaches and fills. Bids for more than \$4000 in aggregate will not be considered. Plans and specifications on file at mayor's office and in office of clerk of county court of Nicholas county.

Building Material.—Suffolk Feed & Fuel Co., 6 Main street, Suffolk, Va., wants prices on galvanized iron, tin, skylights, ventilators, etc.

Building Material.—J. E. Cashon, P. O. Box 19, Wise, Va., wants catalogues, samples, etc., of building material and supplies.

Building Material.—The De Soto Brick Co., Ltd., Mansfield, La., wants prices of building material of all kinds, store fronts, roofing, glass, etc.

Building Material.—See "Roofing."

Building Material.—Mays & Partridge, Monticello, Fla., will purchase building material for cotton warehouse, including iron siding and metal roofing.

Building Material.—The National Bank of Fairfax, Fairfax, Va., wants prices on metal ceiling, stone, brick, cement and door saddles.

Building Trimmings.—E. A. Cooper, Wintererville, N. C., wants catalogues of house trimmings, such as brackets, moulding, turned columns, etc. Send price-lists.

Canning-factory Equipment.—A. S. McPherson, Bay Springs, Miss., wants prices on small canning-factory equipment.

Castings.—T. E. Goodale, Camden, S. C., wants the address of foundries making steel or malleable castings.

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Chemicals.—Miami Mining Co., Concord, N. C., wants the addresses of Southern manufacturers of sulphuric acid.

Clay-washing Machinery.—Memphis Dry Color Co., Memphis, Tenn., wants prices on filter press, plunger mill, pump, etc., for clay-washing plant.

Clay-working Machinery.—Anderson & Moser, Tampa, Fla., want the addresses of manufacturers of clay presses.

Concrete Building-block Machinery.—Robert Ewing, manager Nashville American, Nashville, Tenn., wants to correspond with manufacturers of machinery for grinding hard stone into powder and mixing it with strong cement for conversion into hollow building blocks; full information requested.

Confectioners' Equipment.—Monarch Candy Manufacturing Co., Mobile, Ala., wants prices on confectioners' equipments and machinery.

Contractors' Plant Equipment.—See "Railway Equipment." See "Steam Shovel." See "Asphalt Roller."

Conveying Machinery.—See "Link Belts."

Cooperage-making Machinery.—Seaboard Cooperage & Manufacturing Co., Ltd., Thos. C. Witherspoon, president, New Orleans, La., wants to correspond with manufacturers of cooperage-making machinery.

Cooperage Machinery.—G. E. Aunspaugh, Box 581, Mobile, Ala., wants to correspond with manufacturers of cooperage machinery.

Cotton-cord Machinery.—Sash Cord, care of Manufacturers' Record, Baltimore, Md., wants to correspond with manufacturers of machinery for making sash cord.

Crusher Equipment.—Dwight F. Hill & Co., Baltimore, Md., want prices on portable crusher and portable engine and boiler on wheels; about 25-horse-power.

Distilling Machinery.—The Middleborough Distillery Co., Middleborough, Ky., wants catalogues on distilling machinery.

Dredging.—W. E. Craighill, major, Mobile, corps of engineers, will receive bids until September 24 for dredging in Mobile harbor.

Dry-color Works.—See Clay-washing Machinery.

Electrical Equipment.—W. R. Doss, Welch, W. Va., wants prices on electrical equipment for telephone system.

Electrical Equipment.—Laurens Laundry Co., Inc., Laurens, S. C., wants prices on electric plant and telephone system for its building.

Electrical Machinery.—George L. Keen, Pulaski House, Savannah, Ga., is in the market for electric pump and motor.

Electrical Machinery.—L. F. Verdery & Co., North Augusta, S. C., want prices on electric motors.

Electrical Outfits.—Anderson & Moser, Tampa, Fla., want to correspond with manufacturers of electrical outfits. See "Boilers." See "Link Belts." See "Pumps."

Electrical Wiring, etc.—James Knox Taylor, supervising architect, Treasury Department, Washington, D. C., will receive bids until September 19 for the installation of a conduit and electric wiring system for the United States postoffice and courthouse at Greenville, Tenn. Plans and specifications on file at the office of the supervising architect, Washington, D. C., or of the superintendent of construction at Greenville, Tenn.

Electric-light Equipment.—J. W. Team, Oklahoma City, Okla., wants prices on four 24-light electrical machines.

Electric-light Plant.—The Mayor, Graceville, Fla., is prepared to communicate with contractors and machinery men in reference to installation of electric-light plant. See "Water-works."

Electric-light Plant.—C. K. Swan, Bayboro, N. C., wants prices on new and second-hand equipment for electric-light plant complete.

Engine.—Iowa Grain & Manufacturing Co., Odebolt, Iowa, is in the market for 40 to 60-horse-power light-weight engine to operate motor agricultural apparatus.

Engine and Boiler.—Dodson Plow Co., Columbus, Miss., will want estimates on boiler and engine. See "Plow-works Equipment."

Engine and Boiler.—Marex, care Manufacturers' Record, Baltimore, Md., wants to purchase small portable boiler and engine in first-class condition. See "Saw-mill."

Engine and Boiler.—See "Crusher Equipment."

Engines and Boilers, etc.—Biscayne Starch Manufacturing Co. of Miami, Fla., C. W. Jernigan, president, Lake Mary, Fla., wants prices on engines, boilers and general mill supplies.

Excelsior Machinery.—L. F. Verdery & Co., North Augusta, S. C., want prices on excelsior machinery, press, knife-grinders, elec-

tric motors, mattress machinery, box and crate machinery.

Flavoring Extracts.—See "Beverage Formulas."

Foundry Equipment.—Dodson Plow Co., Columbus, Miss., will want estimates on culverts. See "Plow-works Equipment."

Furnace Grates.—See "Boiler Specialties." Galvanized Iron.—See "Building Material." Gasoline Burners.—See "Peanut-roasting Equipment."

Glass.—See "Building Material."

Grates.—See "Boiler Specialties."

Hoisting Equipment.—S. W. Shoop & Co., Front Royal, Va., are in the market for two hoisting engines, 7x10, double cylinder, single-friction drum, with foot brakes. See "Boilers." See "Railway Equipment."

Iron Bridge.—J. Hop Woods, president Realty Improvement Co., Philippi, W. Va., will receive bids until September 15 for the construction at once of three stone piers containing about 500 cubic yards across the Tygart Valley river, and for the construction, when piers are completed, of a Pratt truss iron bridge 20 feet wide, two spans 148 feet each, with iron guard rail. Payments to be agreed upon when bid is accepted, and bond and security required for the faithful performance of the work.

Lime.—The Grasselli Chemical Co., 300 Godchaux Building, New Orleans, La., wants to correspond with manufacturers of lime in the South, East and Central States.

Link Belts.—Anderson & Moser, Tampa, Fla., want to correspond with manufacturers of link belts. See "Electrical Outfits."

Machine Tools.—See "Packing-house Machinery."

Machine Tools.—The South Georgia Iron Works & Machine Shops, Valdosta, Ga., wants prices on good second-hand planer, 36x36, eight-foot bed.

Mattress Machinery.—See "Excelsior Machinery."

Metal Ceiling.—See "Building Material."

Mill Supplies.—See "Engines and Boilers."

Mill Supplies.—See "Plow-works Equipment."

Mill Work for Buildings.—See "Building Trimmings."

Motors.—See "Peanut-roasting Equipment."

Packing-house Machinery.—The Peninsula Packing Co., Salisbury, Md., wants prices on good second-hand Hooper's 14-inch cylinder press for stamping cases.

Peanut-roasting Equipment.—J. Murray Porter, Lancaster, S. C., wants prices on gasoline burners and spring motors for peanut-roasters.

Phosphate-plant Equipment.—Tennessee Iron & Land Co., J. O. Griffith, general manager, Nashville, Tenn., will want prices in November on machinery for phosphate plant.

Plow-works Equipment.—Dodson Plow Co., Columbus, Miss., will want estimates on engine and boiler, line shafting, belting, cupola, hangers, band saw, etc., for implement works.

Pulverizing Machinery.—McGahay Bros., Basic City, Va., want prices on machinery for grinding sumac leaves.

Pump.—See "Electrical Machinery."

Pumps.—Anderson & Moser, Tampa, Fla., want to correspond with manufacturers of force pumps and Nye pumps. See "Electrical Outfits."

Quarrying Machinery.—The Newkirk White Stone Co., Newkirk, Okla., wants prices on quarrying machinery.

Railway Equipment.—Harper Machinery Co., Park Row Building, New York, N. Y., wants prices on three-foot gauge mine cars two net tons in weight.

Railway Equipment.—S. W. Shoop & Co., Front Royal, Va., are in the market for re-laying rails, 16, 20, 24 and 30-pound, good condition, with fishplates. See "Boilers." See "Hoisting Equipment."

Railway Equipment.—United States Spruce Lumber Co., Marion, Va., wants prices on from 50 to 60 log cars, 36 to 40 feet long, with airbrakes, capacity 50,000 to 60,000 pounds; also good second-hand Lima or Heisler locomotive of from 50 to 60-ton capacity.

Railway Equipment.—Mingo Coal & Coke Co., Middleborough, Ky., wants prices on three-foot six-inch gauge mine locomotive from 5x7 to 7x12-inch cylinder.

Railway Equipment.—Marex, care Manufacturers' Record, Baltimore, Md., wants to buy or lease 10 to 15 second-hand 6500 or 7000-gallon tank cars, standard gauge, air brakes, couplings, etc.; M. C. B. in every respect.

Road Machinery.—Arkansas Rock Asphalt Co., Little Rock, Ark., wants two-ton asphalt steam roller, five and one-half or six-ton

asphalt steam roller; second hand in good condition. See "Boiler."

Roofing.—See "Building Material."

Roofing.—Allen W. Jones, Midville, Ga., wants delivered prices on two and three-ply roofing, one lot to be delivered at Augusta, Ga., and one lot at Midville.

Roofing and Siding.—See "Building Material."

Saws.—Dodson Plow Co., Columbus, Miss., will want estimates on band saw. See "Plow-works Equipment."

Saws.—Dwight F. Hill & Co., Baltimore, Md., want prices on 36-inch band saw.

Saw-mill.—Marex, care Manufacturers' Record, Baltimore, Md., wants to purchase saw-mill complete in first-class condition. See "Engine and Boiler."

Schooner Supplies.—Barataria Canning Co., Biloxi, Miss., wants catalogues on schooner supplies.

Sewage-disposal System.—City of Tallahassee, Fla., will open proposals September 20 for the construction of two septic tanks, two dosing tanks and five contact, comprising sewage-disposal plant. Plans and specifications are on file, and copies, together with blank forms for bids, can be obtained from City Clerk A. H. Williams. Plans, etc., on file with City Engineer Wm. W. Lyon.

Sewerage System.—Date of opening proposals for the construction of sewerage system, recently outlined in this column, has been postponed from August 27 to September 2. Plans and specifications on file with the City Clerk and at office of the engineer in charge, Iowa Engineering Co., Clifton, Iowa.

Shafting and Pulleys.—See "Woodworking Machinery."

Shipchandlery.—See "Schooner Supplies."

Skylights.—See "Building Material."

Smelters.—See "Smelting Furnaces."

Smelting Furnaces.—Virginia Oil, Coal & Mineral Co., Norton, Va., wants addresses of plants operated for smelting gold, silver, copper, zinc, lead and antimony.

Steam Shovel.—Harper Machinery Co., Park Row Building, New York, N. Y., wants prices on a Little Giant steam shovel about three-quarter-yard dipper.

Store Front.—See "Building Material."

Sulphuric Acid.—See "Chemicals."

Telephone Electrical Equipment.—Schooler Bros. Telephone Co., Wilburton, I. T., wants prices on construction of telephone system complete, including poles, wires, telephone apparatus, etc.

Telephone Equipment.—R. J. Boone, Marianna, Fla., wants prices on telephone equipment, including poles, arms, pins, insulators, arm braces, lags and copper wire for a 40-mile line.

Telephone System.—Laurens Laundry Co., Inc., Laurens, S. C., wants prices on telephone system for their building. See "Electrical Equipment."

Telephone System.—See "Electrical Equipment."

Tin.—See "Building Material."

Ventilating System.—The Benedictine College, Savannah, Ga., wants literature regarding cheap and successful ventilation.

Ventilators.—See "Building Material."

Washing Plant.—See "Clay-washing Machinery."

Water-works.—The Mayor, Graceville, Fla., is prepared to communicate with contractors and machinery men in reference to constructing water-works plant; artesian wells to be bored for supply. See "Electric-light Plant."

Well-drilling.—See "Water-works."

Woodenware Machinery.—See "Woodworking Plant."

Woodworking Machinery.—See "Box and Crate Machinery."

Woodworking Machinery.—The Peninsula Packing Co., Salisbury, Md., wants prices on good molding machine.

Woodworking Machinery.—Absey Johnson, Taylorsville, N. C., wants to buy planer, matcher and molder, or heavy planer and molders, new or second-hand.

Woodworking Machinery.—The N. F. Vaughn Manufacturing & Mercantile Co., Columbia, Tenn., wants prices on one heavy planer and matcher and combination molder, one double-cylinder four-inch-roll surfacing machine to plane not less than 26 to 30 inches, one 24-inch circular resaw machine, one swing cut-off saw, one self-feed circular rip saw, one band saw, one scroll saw, one nine-inch molding machine that can also be used as a general woodworking machine, also gaining and joining machine, blind mortiser and borer, one mortising machine, sash, door and blind tenoning machine, universal woodworker, several small machines with

equipment for same, shafting, pulleys, belts, etc.

Woodworking Plant.—E. R. Parker, president, Graceville, Fla., wants to correspond relative to plans, specifications and equipment for veneer, stave, heading, hoop, basket and novelty plant.

MEXICO.

Bank Building.—The Catholic Bank, City of Mexico, will erect additional building and improve its banking structure at a cost of \$50,000.

Business Building.—Bernardo Soto, Saltillo, Coahuila, contemplates erecting modern business building.

Copper Mines.—George E. Voorhees of Santa Barbara, Cal., has completed the purchase of copper-mining properties near Coyane, Chi., for \$85,000.

Copper Mining.—Juan I. Anaya, Guanajuato, Guadalajara, contemplates developing copper mines.

Electric-light Contract.—The city of Tepic has awarded contract to D. Aguirre & Co. of Guadalajara, Jalisco, for electric lighting. The firm will build an electric-lighting plant to be operated by water-power.

Electric Plant.—Aurelio Reyes, alcohol manufacturer, Ameca, Jalisco, is reported as to build electric-light and power plant for

supplying the city, his own factory and other industries.

Fiber-rope Factory.—It is reported that a company represented by M. Terrazos, rope manufacturer, Guadalajara, Jalisco, will build a large plant at Sabinas Hidalgo, New Leon, for manufacturing ropes, mattresses, sacks, etc.

Gold Mines.—It is reported that T. M. Jameson of Buffalo, N. Y., will develop gold mines in the State of Durango.

Malt Factory.—Lic. Domingo Barrios, City of Mexico, has received a concession to establish a malt factory in the State of Queretaro.

Mining and Smelting.—The Encinillas Mines Ltd., Paul Ginther, manager, Santa Rosalia, Chihuahua, is reported as to increase capital by \$200,000 for extending operations and putting smelter in operation.

Mining Properties.—James T. Fulton of Salt Lake City, Utah, represents American capitalists who are investigating mining properties in Mexico. He is registered at the Guardiola Hotel, City of Mexico.

Railways.

Street Railway.—S. Pearson & Son will, it is reported, establish an electric street railway system in Vera Cruz, plans having been made. It is said that construction will begin immediately, with J. N. Nixon, superintendent of the National Express Co., in charge, and E. A. Worswick as chief engineer.

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National Union Bank and others. In all these instances both contractors and architects, eminent in their professions, have enthusiastically endorsed the Lupton window after seeing the most rigid practical tests made. The Lupton window is made of hollow sheet steel or copper frames, glazed with wired glass, ribbed, polished, prism or mazel. It closes automatically by heat. The manufacturers, Dapid Lupton's Son Co. of Philadelphia, have an office at 216 North Calvert street, Baltimore, where inquirers can be given complete particulars regarding the Lupton window.

Recent York Contracts.

York Manufacturing Co., York, Pa., maker of ice manufacturing and refrigerating machinery, has filled the following orders recently: Twenty-ton refrigerating plant for brewery at Mankato, Minn.; 30-ton refrigerating plant for bakery at Philadelphia; 90-ton refrigerating compression side in abattoir at Nashville; 10-ton ice and refrigerating plant in New York; 10-ton refrigerating plant in slaughter-house at Evansville, Ind.; six-ton refrigerating plant in hotel at Clearfield, Pa.; 90-ton compression side in brewery at Reading; 90-ton cross-compound refrigerating machine and complete brine system for plant at fish-freezing and storage establishment in Nova Scotia, and 60-ton cross-compound compression side and brine-cooling plant for creamery at Buenos Ayres.

Rogers & Starr, General Engineers.

Those branches of engineering with which Messrs. H. A. Rogers and B. H. Starr have been prominently identified for some years have received with interest the announcement that the firm of Messrs. Rogers & Starr has been formed to engage in general engineering and contracting. Messrs. Rogers & Starr will make a specialty of civil engineering, mechanical and electrical engineering, the installation of power plants, etc., as well as the designing and building of all kinds of mechanical and electrical engineering works. Mr. Rogers was formerly with the Baldwin Locomotive Works, Boston & Albany Railroad, Ballinger & Perrot and others, while Mr. Starr was with the Camden & Suburban Railway of Pottstown, Pa.; Schuylkill Traction Co. and other enterprises of note. The new firm has located its general offices at 827 Perry Building, Chestnut and 16th streets, Philadelphia.

Vane-Calvert Paint Co. Buys Wieder Plant.

An interesting trade announcement comes from St. Louis in reference to the Vane-Calvert Paint Co., the well-known manufacturers of that city. The company announces that it has acquired the plant, business and trade-marks of the Wieder Paint Co., also of St. Louis, whose reputation as white-lead manufacturers is national. The Vane-Calvert Paint Co. therefore now has three large factories, comprising one of the most complete paint and white lead manufacturing establishments west of New York, and will continue to offer to the trade and consumers both the Vane-Calvert and the Wieder products, all of which have earned a reputation for giving the best results. With this purchase the Vane-Calvert Paint Co. takes possession of the commodious Wieder offices and buildings at 1601, 1603 and 1605 North Broadway, St. Louis.

Generation of Power in Paper Mills.

In the manufacture of paper a large amount of steam is used for power and other purposes, but the demands are not constant. The advantages of mechanical draft as an economical factor in the production of steam in paper mills has recently been illustrated in the installation of an induced draft fan driven by a direct-connected vertical engine in the plant of the Chapin & Gould Paper Co. of Huntington, Mass. Previous to this installation the company used three boilers and all the steam it could generate with a high grade of coal. Since the Sturtevant mechanical draft apparatus was installed the company has been using a much cheaper grade of fuel, which could not be used with chimney draft alone, and now, instead of using three boilers, is only using two and has all the steam needed, and the sudden demands for steam are easily met. The B. F. Sturtevant Company of Boston installed the reduced-draft equipment.

Generation of Power in Paper Mills.

In the manufacture of paper a large amount of steam is used for power, as well as for other purposes. Moreover, the demands for steam are not at all constant. The advantages of mechanical draft as an economical factor in the production of steam in paper mills has recently been illustrated in the installation of an induced-draft fan, driven by a direct-connected vertical engine,

INDUSTRIAL NEWS OF INTEREST

Profitable Electric Plant for Sale.

A modern electric-light plant, established in a growing town, where it is on a paying basis, is for sale. Full particulars can be obtained by addressing W. T. Pitts, Indianapolis, Ind.

Manufactury Wants Additional Capital.

An established manufacturing enterprise, now on a paying basis, finds it necessary to increase output, and will either dispose of the property or increase capital. Investors likely to be interested in this proposition are invited to address "Manufacture," Room 10, Talbot Building, Norfolk, Va.

Sash, Door and Blind Plant Offered.

Manufacturers are invited to write Huger Sinkler, Broad street, Charleston, S. C., for particulars regarding a complete sash, door and blind plant he offers for sale. The plant includes saw-mill, daily output 10,000 feet; dry-kilns, planing mill, sheds, warehouse, stables, office, etc.; machinery all new. Output of doors 100 daily, and of sash and blinds 200 pairs daily.

Frick Co.'s Branch Representatives.

The Frick Company of Waynesboro, Pa., maker of ice-manufacturing and refrigerating machines and Corliss engines, announces that its St. Louis office, at 518 Granite Building, is at present in charge of S. R. Frantz of the home office. About September 15 L. C. Nordmeyer will take charge permanently of the St. Louis office. He was in charge there up to February 1, and since that time has been in the offices at Waynesboro.

Electric Supply Co.'s Many Contracts.

Many important contracts to be completed in Georgia and other parts of the South continue to be filed by the Electric Supply Co. of Savannah, Ga. This company undertakes to install and equip electric-light plant, etc., ready for operation by the owners. It has just contracted for a \$16,000 plant for the city of Thomson, Ga. (30 competitors on this work); also for 500-lamp incandescent plant for home of Hazlehurst's mayor. A number of other large contracts were also obtained.

Triumph Electric Co. in Baltimore.

In order to take advantage of the demand in Baltimore and that city's territory for light and power machinery, the Triumph Electric Co. of Cincinnati, Ohio, has established a branch office at 411 Courtland street, Baltimore, and H. C. Spaulding, assistant sales manager, is in charge. The Triumph Electric Co. has established a high reputation for the lighting and power machinery which it manufactures, and buyers will find its representatives always ready to estimate on machines or entire plants and give full explanations.

A Gilbreth Contract.

The Boston firm of Frank Gilbreth, general contractor, has just been awarded contracts for the construction of five houses, an office building, storehouse, stable and a tall chimney for the International Paper Co. at Piercetown, N. Y. The site is located in the very heart of the Adirondacks. The contract calls for the work to be done before

cold weather, which is generally expected about November 1 in that locality. If the contractor finishes this work on time it will add greatly to his already well-known reputation for handling large contracts without unnecessary delays.

Adopted the Fisher System.

The Georgia Hydraulic Stone Co. of Dublin, Ga., has adopted the Fisher Hydraulic Stone System and installed the necessary machinery for manufacturing building blocks, etc. The company states that its sand is of the best quality, about 99 per cent. silica, and that by using the best Portland cement it can produce artificial stone that will immediately be recommended by architects, contractors and engineers. Each stone or block is to be subjected to 200 tons pressure, thus filling all voidage. The Fisher Hydraulic Stone System, Mt. Gilead, Ohio, can furnish particulars about the system mentioned.

Tinplate Demand Continues.

The N. & G. Taylor Company, manufacturers of tinplate, reports all departments of its Philadelphia plant in full operation, employing 26 tinning stacks, the present activity of the plant comparing favorably with the conditions enjoyed during "boom" times. This company has long made a specialty of high-grade roofing tin, and claims to be the largest manufacturer of this material in the United States. It also makes tinplate, controlling all the processes of manufacture from the raw materials to the finished product. Special attention is given to the quality of black plate, no Bessemer steel being used in any of the brands.

Hardwood Flooring in the South.

The Nashville Hardwood Flooring Co. of Nashville, Tenn., is producing and furnishing in the territory south of the Ohio river a hardwood flooring which architects and builders are recommending for use in cotton mills and other industrial buildings. The company's location enables it, by reason of lower freight rates in the southern territory, to deliver flooring at minimum prices. The oak and beech flooring, which is more than a competitor with maple, being of the same texture, wears well and can be kiln-dried without warping, and manufactured smoothly, while it is not at all susceptible to moisture. It is tough and durable, wearing long and evenly over the surface.

Many Contracts for Lupton Windows.

Protection against fire entering buildings from without is being given full consideration in the rebuilding of Baltimore's burned district. The famous Lupton Fireproof Window is one of the methods most frequently met with for meeting this want, as is evidenced by the numerous contracts the manufacturers are continually receiving. A recent list of contracts for Lupton windows shows about 75 of the best-known structures now being erected as to be equipped with thousands of Lupton windows. In the Baltimore buildings may be noted the National Bank of Commerce, National Marine Bank, Hotel Junker, Robinson Estate, Henkleman Estate, B. C. Bibb Stove Co., Crown Cork & Seal Co.,

Generation of Power in Paper Mills.

In the manufacture of paper a large amount of steam is used for power and other purposes, but the demands are not constant. The advantages of mechanical draft as an economical factor in the production of steam in paper mills has recently been illustrated in the installation of an induced draft fan driven by a direct-connected vertical engine in the plant of the Chapin & Gould Paper Co. of Huntington, Mass. Previous to this installation the company used three boilers and all the steam it could generate with a high grade of coal. Since the Sturtevant mechanical draft apparatus was installed the company has been using a much cheaper grade of fuel, which could not be used with chimney draft alone, and now, instead of using three boilers, is only using two and has all the steam needed, and the sudden demands for steam are easily met. The B. F. Sturtevant Company of Boston installed the reduced-draft equipment.

Generation of Power in Paper Mills.

In the manufacture of paper a large amount of steam is used for power, as well as for other purposes. Moreover, the demands for steam are not at all constant. The advantages of mechanical draft as an economical factor in the production of steam in paper mills has recently been illustrated in the installation of an induced-draft fan, driven by a direct-connected vertical engine,

in the plant of the Chapin & Gould Paper Co. of Huntington, Mass. Previous to the installation of this apparatus the company was using three boilers and all the steam they could generate with a high grade of coal. Since the Sturtevant mechanical-draft apparatus was installed the company has been using a much cheaper grade of fuel (which could not be used with chimney draft alone), and now, instead of using three boilers, it is only using two, and has all the steam needed, and the sudden demands for steam are easily met. It is stated that the cost of the apparatus has been saved in fuel in six to seven months. The B. F. Sturtevant Co. of Boston installed the equipment for mechanical draft.

Steel-Plate Construction Work.

In addition to the erection of blast furnaces, steel works, etc., the William B. Pollock Company of Youngstown, Ohio, is engaged in the building of all kinds of steel-plate construction. Among its products may be mentioned steel chimneys, self-supporting and guide standpipes, storage tanks, riveted steel pipe, penstocks, vats, etc., much of which is built from the special designs of engineers. The company's plant is conveniently located in the central States, with excellent access to all the Southern points, where it enjoys a continual good call from the trade. The shops are thoroughly equipped to handle all kinds of heavy steel-plate work, and with a complete field rig service it is prepared to erect work anywhere promptly. Operators of cottonseed-oil mills, oil refiners, turpentine plants, glucose and sugar refineries, grain elevators, etc., who contemplate improvements requiring steel-plate construction, and engineers and architects designing new work in this line, are invited to communicate with the William B. Pollock Company relative to the cost of the construction of this part of the work.

Marine Work an Art in Itself.

The design and construction of marine machinery is an art in itself. Successful equipment in that class is the product of the highest grade of boilermaking which skilled workmen, materials and science can accomplish. Besides the knowledge required in designing and constructing, it is necessary that the marine-machinery builder be thoroughly posted on the constantly-changing laws governing the inspection of marine machinery. These necessities have caused establishments undertaking such work to make a specialty of it, and among the most prominent and successful in America is the Marine Iron Works of Chicago. For more than 20 years the company has made a careful study of marine boilers, marine work, steamboat outfitting, etc., and its product is used in almost all parts of the world, affording the best results to their owners and operators. W. G. Nourse, manager of the Marine Iron Works, is well known as a marine engineer, and his contributions to the literature of marine engineering are acknowledged to be most thorough. He has recently printed an interesting treatise on the inside proportions and design of internally-fired marine boilers.

TRADE LITERATURE.

For Northrop Looms.

"Cotton Chats" for August contains an explanation of a new method of filling hoppers on Northrop looms, and other information that will interest cotton manufacturers. Write the Draper Company, Hopedale, Mass.

The September Graphite.

"Graphite" for September is a special number, containing instructive and seasonable talks on the preservation of metal surfaces with Dixon's Silica-Graphite Paint. Paint specifiers and users in every country of the world will be interested in the excellent illustrations in halftone of notable steel structures and the information on good paint and good painting. This publication will be sent free on request to the Joseph Dixon Crucible Co., Jersey City, N. J.

Concerning Perforated Metal.

A series of pamphlets concerning perforated metal for various classes of work is now being issued. These publications are replete with facts and figures enabling buyers of perforated metals to become acquainted with the well-known product of the Harrington & King Perforating Co., which has made such work a specialty for years. Booklet No. 1 is devoted to perforated brass and tin. Copies of it can be obtained by addressing the company at 224 North Union street, Chicago, or 114 Liberty street, New York.

Water-Sealed Reversing Valve.

The Foster Patent Water-Sealed Reversing Valve is used for regenerative gas furnaces, heating furnaces, glass furnaces, open-hearth furnaces, crucible furnaces, soaking pits, etc. It is manufactured by the Wellman-Seaver-Morgan Co. of Cleveland, Ohio, and the latter has issued an illustrated pamphlet describing the valve. There is also given a list of users which is of interest as indicating the substantial recognition which the merits of the valve have secured. Its widespread adoption in leading plants is significant, and in itself affords convincing evidence of the valve's complete efficiency and success.

Interior Fire-Hose Appliances.
Owners and occupants of buildings are usually on the lookout for improved appliances for the protection of their properties from fire. In perfecting apparatus for that purpose there are some well-known manufacturers engaged, including Charles Nuhring, 907 Walnut street, Cincinnati, Ohio. Mr. Nuhring's improved swinging hose rack, reels, fire hose, chemical extinguishers, hose valves, standpipe connections and other specialties have met with entire success and afforded protection by promptly extinguishing incipient fires in many prominent structures and factories through the country. They are described and illustrated in a booklet which Mr. Nuhring issues and will send copies of to inquirers.

Northern Small Motors.

The popularity of the Northern steel spherical motors has caused an increasing demand for them in smaller sizes, and to meet this the manufacturer's engineers have from time to time added new small frames to such an extent that it has been found advisable to classify these small motors. This classification is presented in an illustrated leaflet of particulars now being issued. This leaflet tells of the small machines built with such deviations from standard construction as have been found necessary. The Northern Electrical Manufacturing Co. of Madison, Wis., is the manufacturer of the motors referred to. Its machines have all earned an enviable reputation in the industrial world. The company has issued a map of the exposition grounds at St. Louis which will be of interest, showing the location of the Northern exhibit among the many others.

A Handsome Publication.

A handsomely illustrated and descriptive publication devoted to the interests of Camden, N. J., has been issued recently. Its contents include data referring to the extent of the business and manufacturing industries of the city, and among the buildings pictured are some structures which were built under contract by Messrs. Henderson & Co., Ltd., contractors and builders, 1221 Arch street, Philadelphia, and 218 West Fayette street, Baltimore. The buildings mentioned include Camden county's new courthouse, electrical workshop and storehouse at League Island Navy-Yard, Philadelphia; the Torredale filter plant of the city of Philadelphia, and others. The Torredale work is said to have been the largest single contract for carpenter labor and centering ever awarded. Messrs. Henderson & Co. are securing some of the best contracts in the rebuilding of Baltimore's burned district.

The Exhibit Covering the Exhibit.

One of the most attractive booklets issued in connection with the exposition at St. Louis is that of Messrs. J. A. & W. Bird & Co. of Boston, New York and other cities. It tells important facts regarding Rex Flintkote Roofing, which is not only displayed in the Bird & Co. booth in the Palace of Varied Industries, but also practically covers the World's Fair buildings. Over 7,500,000 square feet of the roofing was laid on the main buildings, and thousands of feet additional can be seen on State buildings and various structures on "The Pike." The wear and tear on buildings of this character is said to be more trying in one year than in 10 years on ordinary structures. Rex Flintkote Roofing can be seen bending and conforming to the difficult domes, towers, minarets and many other shapes demanded on the exposition buildings, and without cracking or detracting from the roofing's great qualities for protective service. The Bird booklet includes pictures of some prominent buildings in the South that have been roofed with Rex Flintkote, including those of the Georgia Cotton-oil Co. at Macon, Virginia-Carolina Chemical Co. at Richmond, Southern Cotton-oil Co. at Savannah, Richmond Guano Co. at Richmond, and numerous others, also many in other sections of the United States. For factories, sheds, roundhouses, breweries, foundries, carhouses, glass works, stables, residences, barns, etc., Rex Flintkote Roofing is applicable, being waterproof, fireproof, durable. "Look for the Boy on Every Roll."

FINANCIAL NEWS

The Manufacturers' Record invites information about Southern financial matters, items of news about new institutions, dividends declared, securities to be issued, openings for new banks, and general discussions of financial subjects bearing upon Southern matters.

Review of the Baltimore Market.

Office Manufacturers' Record,

Baltimore, Md., August 31.

The influence of the Seaboard deal continued to affect the Baltimore stock market during the past week, with the result that the securities of that company occupied most of the attention of both brokers and speculators throughout the period. The common stock advanced about four points and the preferred about seven and a-half points, the gains being well sustained. While the transactions in Seaboard were large, overshadowing everything else, there was some show of activity in United Railways, United Light & Power, Consolidated Gas, Cotton Duck and other favorites. There was more trading than usual in bank and trust-company shares, and the demand for investment securities improved.

In the dealings United Railways common sold at 8, the incomes at 47½ down to 46%, with a recovery to 47, and the 4s from 93½ to 93%; Light & Power preferred changed hands at 36½ and 37, and the 4½s from 88½ to 80; Consolidated Gas moved between 80½ and 82, the 6s from 111 to 110½, and the 5s at 113½ to 114; Seaboard common sold up from 13½ to 17, reacting to 16, recovering to 16½, with the last sale at 16½; the preferred from 24% to 32%, reacting to 32, with the last sale at 32½; the 4s advanced from 81½ to 83, with the last sale at 82, after going back to 81%; the 10-year 5s sold from 102 to 103, and the three-year 5s from 95½ up to 97½, which latter was the last sale. Cotton Duck common went from 3½ to 3½, United States Cotton Duck sold at 4½, Cotton Duck income bonds from 16 to 18½, and the 5s from 68 to 70. G.-B.-S. incomes went from 24 to 25, and the 1sts from 54½ to 55, reacting to the start.

Bank stocks sold as follows: Baltimore, 117½; Citizens', 26½ and 27; Farmers and Merchants', 54 to 56; Commerce, 25; German, 106. Trust and other company shares sold as follows: United States Fidelity & Guaranty, 100 and 100½; Fidelity & Deposit, 136 to 140; Baltimore Trust & Guarantee, 250; Mercantile Trust, 137½ to 140; Maryland Casualty, 49½; Continental Trust, 107 and 107½; International Trust, 92½ and 93.

Other securities dealt in were as follows: Atlantic Coast Line common, 120½ to 122, reacting to 121; do. consolidated 4s, 100½; do. certificates, 4s, 91; Northern Central stocks, 84 to 86½; Georgia & Alabama Con. 5s, 107½ to 108½; do. terminal 5s, 105½ to 106; Florida Southern 4s, 94½ to 95½; Lexington Street Railway 5s, 100; Coal & Iron Railway 5s, 103½ to 104½; Western Maryland new 4s, 83½ to 86%; Alabama Coal & Iron prefer. 4, 48½ and 50; Maryland Telephone 5s, 86½ to 87; Carolina Central 4s, 94½ to 94%; Norfolk & Carolina 5s, 117½; Georgia Southern & Florida 5s, 114½; Baltimore Traction convertible 5s, 102 and 102½; West Virginia Central 6s, 111 and 111½; Virginia Midland 5th 5s, 114 and 114½; Norfolk Street Railway 5s, 106½; Central Railway 5s, 106½; Columbia & Greenville 6s, 117½; Baltimore City 3½s, 1940, 110½; do. 1936, 109; do. 4s, 1925, 113½; do. 3s, 1928, 108½; Georgia & Pacific 6s, 122½; Atlanta Street Railway 5s, 106½; North Carolina 4s, 103; Alabama Coal & Iron common, 10½; City & Sub-

urban 5s (D. G.), 100; Norfolk Street Railway stock, 7; Consolidation Coal, 68½; Macon Railway & Light stock, 15; Charleston City Railway stock, 12; Georgia, Carolina & Northern 5s, 112.

SECURITIES AT BALTIMORE.

Last Quotations for the Week Ended August 31, 1904.

	Par.	Bid.	Asked.
Georgia Southern & Florida	100	25	...
Georgia Sou. & Fla. 1st Pref.	100	95 ½	...
Georgia Sou. & Fla. 2d Pref.	100	64	68
United Railways & Elec. Co.	50	7	8 ½
Seaboard Railway Common	100	15	16 ½
Seaboard Railway Preferred	100	32 ½	33
Charleston Con. Ry. G. & E.	50	10	12
Atlantic Coast Line	100	129	121
Macon Railway & Light Stock	100	10	15
Atlantic Coast Line of Conn.	100	255	...

	Bank Stocks.
Citizens' National Bank	10 26 ½ 27 ½
Commercial & Far. Nat. Bank	100 100
Drovers & Mech. Nat. Bank	100 300 210
Farmers & Mer. Nat. Bank	40 55 ½ 57
German Bank	100 105 107
German-American Bank	100 105 ½ 107
Merchants' National Bank	100 169 170
National Bank of Baltimore	100 117 ½ 118 ½
National Howard Bank	10 10 ½ 12
National Mechanics Bank	10 27 ½ 28
National Union Bank of Md.	100 116 119
Second National Bank	100 182 183
Western National Bank	100 36 ½ 37

Trust, Fidelity and Casualty Stocks.

Baltimore Trust & Guarantee	100	240	251
Central Real Estate & Trust	50	49	50
Continental Trust	100	107 ½ 110	...
Fidelity & Deposit	50	129	145
International Trust	100	90	95
Maryland Casualty	25	...	50
Mercantile Trust & Deposit	50	137	141
Union Trust	50	37	40
U. S. Fidelity & Guaranty	100	100	100 ½

Miscellaneous Stocks.

G. B. & S. Brewing Co.	100	5 ½ 6 ½	...
United Elec. L. & P. Pref.	50	36 ½ 39	...
Cotton Duck Voting Trust	100	3 ½ 3 ½	...
Consolidation Coal	100	65	68 ½
George's Creek Coal	100	65	68
Consolidated Gas	100	81 ½ 82	...

Railroad Bonds.

Albany & Northern 5s	...	92	...
Atlantic Coast Line Con. 4s	100	100	100
Char. Col. & Aug. 1st 5s, 1910	115	...	...
Char. Col. & Aug. 20th 7s, 1910	110	...	...
Columbia & Greenville 1st 6s, 1916	117 ½	118	...
Georgia, Car. & North. 1st 5s, 1916	122	113	...
Georgia South. & Fla. 1st 5s, 1915	114	115	...
Georgia Pacific 1st 6s, 1922	122 ½	123	...
Piedmont & Cum. 1st 5s, 1911	105	105	...
Raleigh & Augusta 1st 6s, 1916	120	120	...
Seaboard & Roanoke 6s, 1916	100	100	...
Southern Railway Con. 5s, 1924	100	100	...
Virginia Midland 2d 6s, 1911	113	113	...
Virginia Midland 3d 6s, 1916	116	116	...
Virginia Midland 4th 6s-4-5s, 1921	112	112	...
Virginia Midland 5th 5s, 1926	114	114 ½	...
West Virginia Central 1st 6s, 1911	111	111 ½	...
Wilmington & W. Gold 5s, 1935	115	115	...
Charleston City Railway 5s, 1923	106	106	...
Charleston Con. Electric 5s, 1999	87	87	...
Knoxville Traction 1st 5, 1928	105	105	...
Newport News & Old Pt. 5s, 1928	102	102	...
Norfolk Street Railway 5s, 1944	106	106	...
United Railways 1st 4s, 1949	93	93 ½	...
United Railways Inc. 4s, 1949	47	47 ½	...
Seaboard 4s	81 ½	82	...
Seaboard 10-year 5s	102 ½	103	...
Seaboard 3-year 5s	97 ½	97 ½	...
Lexington Railway 1st 5s	100	101	...
Richmond Traction 5s	103	103	...
Norfolk Railway & Light 5s	83	85	...
Augusta Railway 5s	101	101	...
Georgia & Alabama Con. 5s	108	108 ½	...
South Bound 5s	109	109	...
Coal & Iron 5s	104	104	...

Miscellaneous Bonds.

Mt. V. & Woodly's Cot. Duck 5s	69 ½	70 ½	...
Mt. V. & Woodly's Cot. Duck Inc.	16 ½	18 ½	...
G. B. & S. Brewing 1st 4s	51 ½	54 ½	...
G. B. & S. Brewing 2d Incomes	24 ½	24 ½	...
United Elec. Light & Power 4s	85 ½	89	...
Consolidated Gas 6s, 1910	111 ½	115	...
Consolidated Gas 5s, 1939	113 ½	115	...

SOUTHERN COTTON-MILL STOCKS

Quotations Furnished by Hugh MacRae & Co., Wilmington, N. C., for Week Ending August 30.

	Bid.	Asked.
Abbeville Cotton Mills (S. C.)	60	71
Aiken Mfg. Co. (S		

The operations of the Steamship Company during the past year have been satisfactory, but owing to the large expense incurred by it in the purchase of new ships, the improvement of the pier in New York, the purchase of the new tug, and other items, no dividends upon the capital stock of the Company have been paid for some time, nor can any be expected during the current year.

GENERAL REMARKS.

During the year there were established on or adjacent to the lines of the Railway Company 116 new industries, representing 23 different classes, with capital of \$4,814,500, and employing 3980 hands.

2,316,281 peach trees were planted on our lines during the year, and there was an increase of 240,730 peach trees coming into bearing during the year.

The miles of road operated have increased 33.16 because of the Flora Extension of the Chattahoochee & Gulf Railroad (23.79 miles), and the acquisition and extension of the Lyster Branch on the Chattanooga Division (9.37 miles).

Attention is called to the report of the General Superintendent covering the operation and physical condition of the property, and to the report of the Auditor with respect to the financial condition and results of operation in detail, and for statistics of operation and traffic.

The accounts of the Company have been examined by Messrs. Haskins & Sells, Certified Public Accountants, and a copy of their certificate appears on page No. 16 of this report.

Acknowledgment is made to officers and employees for faithful and efficient service.

Respectfully submitted,

By order of the Board of Directors,

J. F. HANSON,
President.

Central of Georgia Railway Company.

OFFICE OF GENERAL SUPERINTENDENT.

Savannah, Ga., August 1, 1904.

Mr. J. F. HANSON,

President:

Sir—The following report on the operation and physical condition of the property for the fiscal year ended June 30, 1904, is submitted:

MILES OF ROAD OPERATED JUNE 30, 1904.

Owned—Under First and Consolidated Mortgages:	In Georgia.	In Alabama.	In Tennessee.	Total.
Savannah to Atlanta, Ga.	294.73			294.73
Gordon to Milledgeville, Ga.	17.32			17.32
Total.	312.05			312.05
Owned—Under Divisional and Consolidated Mortgages:				
Dover to Brewton, Ga. (Oconee Division)	77.02			77.02
Milledgeville to Covington, Ga. (M. G. & A. Division)	64.57			64.57
Macon Junction to Athens, Ga. (Macon & Northern Division)	101.78			101.78
Columbus, Ga., to Andalusia, Ala. (Mobile Division)	1.14	136.82		137.96
Carrollton, Ga., to Chattanooga (Shops), Tenn. (Chat. Div.)	133.79		3.78	137.57
Chickamauga to Durham, Ga. (Chattanooga Division)	17.54			17.54
Lyster, Ga., to Toles Hollow, Ala. (Chattanooga Div.)	6.85	2.52		9.37
Totals.	402.69	139.34	3.78	545.81
Owned—Under Consolidated Mortgaze:				
Savannah to Tybee, Ga.	17.70			17.70
Melton to Lyons, Ga., 58.09 miles, leased to Ga. & Ala. Ry. Co.				
Barnevile to Thomaston, Ga. (Entire stock owned)	16.25			16.25
Griffin to Carrollton, Ga.	69.00			69.00
Covington to Porterdale, Ga.	4.05			4.05
Athens to Columbus, Ga.	62.34			62.34
Columbus to Greenville, Ga. (Narrow Gauge)	49.51			49.51
Columbus, Ga., to Birmingham, Ala.	1.07	155.27		156.34
Opelika to Roanoke, Ala.	36.12			36.12
Montgomery to Eufaula, Ala.	79.65			79.65
Eufaula to Ozark, Ala.	60.00			60.00
Totals.	210.92	331.04		541.96
Grand Totals—Owned.	925.66	470.38	3.78	1,399.82

Leased:

Augusta & Savannah Railroad:				
Millen to Augusta, Ga.	53.21			53.21
Southwestern Railroad:				
Macon, Ga., to Eufaula, Ala.	142.60	1.00		143.60
Fort Valley to Columbus, Ga.	71.00			71.00
Fort Valley to Perry, Ga.	12.50			12.50
Smithville, Ga., to Columbia, Ala.	83.61	1.40		85.01
Cuthbert to Fort Gaines, Ga.	20.50			20.50
Chattahoochee & Gulf Railroad:				
Columbia to Lockhart, Ala.		91.47		91.47
Totals.	383.42	93.87		477.29

Owned Track on Leased Right of Way:

Chattanooga, Tenn. (Shops to N. C. & St. L. Connection)				
Trackage Rights:				
C. N. O. & T. P. and Alabama Great Southern Railways:				
Chattanooga, Tenn.				

Total miles operated..... 1,309.08 564.25 4.50 1,877.83

1164.7 shares pledged

EARNINGS, EXPENSES AND TAXES.

Earnings:	1904	1903	Inc.	Dec.	Per Cent. of Inc. or Dec.
From Passengers.....	\$2,164,458	\$2,001,004	\$160,654		8.02
" Freight.....	6,227,550	6,202,314		\$74,761	1.19
" Mail.....	179,006	176,991	2,815		1.59
" Express.....	168,911	183,204		15,293	8.34
" Other Sources.....	656,906	497,557	\$109,049		31.95
Total Earnings.....	\$9,396,931	\$9,164,470	\$232,461		2.54

Expenses:	1904	1903	Inc.	Dec.	Per Cent. of Inc. or Dec.
Maintenance of Way and Structures.....	\$1,823,517	\$1,857,768			
Maintenance of Equipment.....	1,258,597	1,416,221			
Conducting Transportation.....	3,146,895	3,218,651			
General Expenses.....	325,529	330,092		5,437	1.65
Total Expenses.....	\$6,861,579	\$6,822,732		\$41,777	.61
Taxes.....	322,874	299,817		53,060	19.67
Total Expenses and Taxes.....	\$7,187,386	\$7,092,549		\$94,337	1.34
Net Earnings, including Taxes.....	\$2,309,515	\$2,071,921		\$137,624	6.64
Expenses and Taxes—percentages of earnings.....	76.49	77.39		.90	1.16

GROSS EARNINGS, OPERATING EXPENSES AND NET EARNINGS, AVERAGES PER MILE OPERATED, AVERAGES PER REVENUE TRAIN MILE, ETC.

	1904	1903	1902	1901	1900	1899
Average Miles Operated.....	1,864.69	1,844.67	1,844.67	1,677.81	1,539.12	1,523.71
Revenue Train Miles.....	5,746,701	5,824,852	5,932,967	4,802,640	4,400,246	4,156,234
Gross Earnings.....	\$9,396,931	\$9,164,470	\$5,770,691	\$4,920,714	\$4,086,263	\$3,576,345
Gross Earnings per mile operated.....	5,039.41	4,968.08	4,201.67	4,124.85	3,954.38	3,785.07
Gross Earnings per revenue train mile.....	1.63	1.57	1.43	1.44	1.38	1.39
Operating Expenses per mile operated.....	6,864,508	6,822,732	6,531,038	4,778,147	3,997,748	3,759,977
Operating Expenses per revenue train mile.....	3,681.32	3,693.62	2,998.39	2,847.85	2,597.42	2,467.65
Operating Expenses—percentage of gross earnings.....	73.05	74.45	71.36	69.04	65.68	65.19
Net Earnings.....	\$2,532,422	\$2,311,738	\$2,219,652	\$2,142,567	\$2,088,515	\$2,007,367
Net Earnings per mile operated.....	1,358.09	1,269.46	1,203.28	1,177.00	1,156.96	1,137.42
Net Earnings per revenue train mile.....	44	40	41	45	47	48
Net Earnings—percentages of gross earnings.....	26.95	25.55	28.64	30.96	34.32	34.81

MAIN LINES.

Through purchase and extension there was acquired during the fiscal year a line from Lyster, Georgia, to Toles Hollow, Alabama (Chattanooga Division), a distance of 9.37 miles, measuring 6.85 miles in Georgia and 2.52 miles in Alabama.

The Chattahoochee & Gulf Railroad was extended from Sellersville to Lockhart, Alabama, a distance of 23.79 miles, and that line now embraces 91.47 miles.

In the reconstruction of miles 102 and 103, Columbus Division, there was expended \$13,193.30, completing the work in this fiscal year, and trains are being operated over the new line.

EXTENSIONS AND SIDE TRACKS.

Eighty-eight new side and spur tracks, aggregating 32.81 miles, were constructed, and twenty-six side and spur tracks were extended, aggregating 3.18 miles, making a total of 35.99 miles of side and spur tracks constructed during the year. 4.45 miles of side and spur tracks were removed or shortened. Extensive additions have been made to the yards at a number of points, notably at Savannah, Macon, Griffin, Chattanooga and Albany. The work at Macon and Albany has not yet been completed, but should be finished by September 15, 1904. These improvements will greatly facilitate the movement of freight trains, and will tend to economize the cost of operation.

McFarland's Gap Spur Track from Cremo to Cloud Springs Army Post was completed during the year, this Company owning that portion from Cremo to Rapid Transit Crossing, a distance of 1.404 miles, the United States Government the remaining portion, 1.275 miles, including side tracks at end of spur.

CROSSTIES.

Eight hundred and eighty-three thousand, five hundred and ninety-four crossties were placed in track during the year.

BALLAST.

Stone, slag, gravel and cinder ballast were placed under 28.65 miles of main track during the year.

BRIDGES AND TRESTLES.

In completing the Subway at Trestle A-1, Savannah, there was expended \$8733.49 during this fiscal year.

Our proportion of the cost of Peters Street Viaduct at Atlanta was \$26,594.54.

The two steel girder bridge spans over Short Street, Columbus, cost during this fiscal year \$12,649.44.

There has been expended in renewing and strengthening steel bridges on certain parts of the line to permit the use of heavier motive power \$46,759.89.

Trestles A, B and C on mile 72, Columbus Division, have been eliminated at a cost of \$17,025.08 in this fiscal year, by the digging of canals, thereby diverting the water from under the track.

A brick arch culvert, 6 feet in diameter by 687 feet long, was built on right of way along the north leg of the wye, between Tallapoosa and Russell Streets, at Opelika, Alabama, at a cost to this Company of \$7934.82. The Western Railway of Alabama paid for that portion on their right of way.

7,860,469 feet of timber (board measure) were used in repairing, rebuilding and constructing bridges and trestles.

One hundred and ten trestles, aggregating 5474 lineal feet of track, or 1.04 miles, were filled with earth, and suitable waterways provided, at a total cost of \$61,528.99.

STEEL RAILS.

Six thousand tons of new eighty-pound steel rails were contracted for. 9654.25 tons of rails, received on previous and this year's purchases, were placed in track, aggregating 76.80 miles.

MILES OF MAIN TRACK AND WEIGHT OF STEEL RAILS AND MILES OF SIDE AND SPUR TRACKS, JUNE 30, 1904, AND 1903.

Owned Main Track Operated:	Steel Rail—Miles.												Total	Total main track, June 30.	Miles of side and spur tracks, June 30.					
	80-lb.	75-lb.	70-lb.	68½-lb.	65-lb.	63½-lb.	61½-lb.	60½-lb.	56-lb.	Under	steel.	Iron.								
Savannah to Tybee, Ga.	253.36	28.15	9.28	14.40	2.39	.07	.88	.60	3.30	17.70	17.70	2.32	2,27	1904.	1903.					
Savannah to Atlanta, Ga.										294.73	294.73	16.25	1.35	2,27	158.03	139.03				
*Barnesville to Thomaston, Ga.										197.57	197.57	197.57	34.76	29.39						
Griffin, Ga., to Chattanooga, Tenn.										55.94	55.94	55.94	9.00	8.74						
Gordon to Porterdale, Ga.										62.34	62.34	62.34	3.80	3.83						
Americus to Columbus, Ga.										14.70	14.70	14.70	4.73	4.67						
Columbus to Greenville, Ga. (Narrow Gauge)										2.29	2.29	2.29	2.81	2.81						
Columbus, Ga., to Birmingham, Ala.	104.40	16.29	25.40							.89	156.34	156.34	41.53	44.16						
Opelika to Roanoke, Ala.										15.78	51.13	12.74	36.12	36.12						
Eufaula to Montgomery, Ala.										5.15	20.36	59.98	60.00	60.00						
Euclid to Ozark, Ala.										9.92	34.96	77.02	77.02	77.02						
Dover to Brewton, Ga.										15.78	55.61	101.78	101.78	101.78						
Macon Junction to Athens, Ga.										14.39	67.89	137.96	137.96	137.96						
Columbus, Ga., to Andalusia, Ala.										.80	1.54	17.54	17.54	17.54						
Chickamauga to Durham, Ga.	16.74										7.83	9.37	9.37	3.78	3.69					
Lyerly, Ga., to Toles Hollow, Ala.																				
Totals.	374.50	16.29	85.70	39.46						270.22	93.57	15.04	459.45	18.21	1,372.44	27.38	1,399.82	1,390.45	309.50	266.06
Lensed Main Track Operated:																				
Augusta & Savannah Railroad—																				
Milled to Augusta, Ga.																				
The Southwestern Railroad—																				
Macon, Ga., to Eufaula, Ala.	14.48									27.95	72.49	.72	27.96		143.60	143.60	45.12	42.95		
Fort Valley to Columbus, Ga.										35.00	35.12	.58	71.00		71.00	71.00	12.21	12.16		
Fort Valley to Perry, Ga.										23.13	.97	3.02	55.65		12.50	12.50	1.76	.86		
Smithville, Ga., to Columbia, Ala.															82.77	82.77	85.01	14.81	14.38	
Cuthbert to Fort Gaines, Ga.															20.50	20.50	20.50	2.83	1.96	
Chattahoochee & Gulf Railroad—																				
Columbia to Lockhart, Ala.																				
Totals.	14.48																			
Owned Main Track Operated on Leased Right of Way:																				
From Chattanooga Shops to connection with N. C. & St. L. Railway at Chattanooga.																				
Owned Second Track Operated:																				
Hapeville to East Point, Ga.																				
Recapitulation:																				
Owned Main Track Operated.	374.50	16.29	85.70	39.46						270.22	93.57	15.04	459.45	18.21	1,372.44	27.38	1,399.82	1,390.45	309.50	266.06
Leased Main Track Operated.	14.48									66.46	27.95	151.69	6.17	5.74	202.56	1.3	475.05	2.24	453.50	99.29
Owned Main Track Operated on Leased Right of Way.																				
Owned Second Track Operated.																				
Totals, June 30, 1904.	388.98	16.29	86.45	107.90	27.95	421.91	99.74	20.78	662.14	18.21	1,850.35	29.62	1,873.97	1.3	408.79	277.25				
Totals, June 30, 1903.	315.90	16.29	87.58	108.31	29.45	447.41	117.10	21.63	653.75	18.21	1,815.53	31.28	1,846.51	1.3	408.79	277.25				
*Upson County Railroad; entire stock owned.																				

BUILDINGS.

The sheds for the storage and protection of cotton, on the Savannah terminals, upon which construction was started in the previous fiscal year, have been completed at a cost of \$12,323.21 in this fiscal year.

The extensive improvements at Berth 4, and dredging along the river front, Savannah terminals, are well advanced, and will be completed in time for next fall's business. The estimated cost of this work is \$20,000.

The Link Belt coaling stations at Griffin, Cedartown and Chickamauga, upon which work was commenced in previous fiscal year, were completed at a cost of \$3166.16 in this fiscal year.

A new Link Belt coaling station has been erected at Fort Valley at a cost of \$8018.61.

A new Link Belt coaling station is in course of construction at Macon. The estimated cost of this plant is \$22,000.

There was \$2567.78 expended on the replacement of coal chute at Woodlawn Junction, Alabama.

The station buildings at Forest and Hillsboro, Georgia, upon which construction was commenced in previous fiscal year, were completed at a cost of \$2798.40 in this fiscal year.

Station buildings were erected at Sharpsboro and Rossville, Georgia, and Camp Hill and Boswell, Alabama, costing \$7237.07.

Umbrella sheds were put up at Rock Springs, Green's Mill and Missionary Ridge, Georgia.

A telegraph office was constructed at Ohio, Georgia.

Standard section houses were completed at Munnerlyn and Willards, Georgia, and a standard foreman's house was erected at Waynesboro, Georgia.

Owing to the sale of land at Atlanta to the Atlanta Terminal Company, necessitating our vacating old premises, new freight depot and platforms, round house with five engine stalls, store houses and a water tank were constructed.

Many station buildings have been revised and added to.

\$11,310.50 was expended in improvements at Boswell, Thompson, Suspension and Inverness, Alabama.

Payments of \$1977.16 were made for paving parts of streets at Savannah, Augusta, Atlanta and Birmingham.

There was paid for the purchase of right of way and other real estate on the different divisions during the year \$29,148.83.

Track scales have been erected at Cuthbert and Montezuma, and those at Albany have been enlarged.

New telegraph lines were constructed between Griffin and Chattanooga, and between Eufaula and Montgomery, costing \$6100.03.

During the fiscal year 4,750,742 feet of timber (board measure) were used in constructing new buildings and platforms, and in repairs and extensions to old buildings and platforms.

EQUIPMENT.

Five passenger, seven switching and eighteen freight locomotives, a total of thirty, were acquired during the year, of which twenty are under Equipment Trust "D."

One locomotive was condemned and three locomotives sold.

One locomotive was equipped with M. C. B. couplers, and one with automatic pilot coupler.

Current repairs on locomotives were as follows: Twenty-eight cost over \$1000 each; sixty-three between \$1000 and \$500 each, and one hundred and sixty-two less than \$500 each. The cost of current repairs to all locomotives in service averaged \$1126.07.

Two hundred box cars and eight hundred coal cars, eighty thousand pounds capacity, were completed at the Company's shops and acquired during the year under Equipment Trust "D."

Three mail and express and three baggage cars of standard dimensions were completed at the Company's shops during the year.

Three sleeping cars and six passenger cars were acquired during the year under Equipment Trust "D."

The present standard of our passenger equipment has been maintained at an average cost of \$493.99 per car for current repairs.

One hundred and eighty-two freight cars were equipped with air brakes.

Cost of current repairs to the Company's freight equipment averaged \$42.54 per car. On all cars (foreign and owned) receiving current repairs the average cost was \$14.30 per car.

\$30,027.00 was expended for the purchase and installation of sundry tools and machinery at the various shops.

A new steam shovel and unloader was purchased at a cost of \$14,610.08.

A 50-ton steam wrecking crane was purchased at a cost of \$10,882.33.

The following table indicates equipment owned and operated by the Company:

Locomotives:	INVENTORY OF EQUIPMENT, JUNE 30.			Total	June 30,
	Classes.	Owned.	Under Equipment Trusts.		
Standard	215	31	246	220	220
Narrow Gauge	3	...	3	3	3
Totals.	218	31	249	222	
Passenger Train Equipment:					
Sleeping Cars	12	3	15	14	
Chair Cars	2	2	2	2	
Passenger Cars	120	6	126	119	
Combination Cars	25	25	25	25	
Baggage, Mail and Express Cars	55	55	55	49	
Totals.	214	9	223	209	
Freight Train Equipment:					
Box Cars—Ventilated	2,243	...	2,243	2,269	
Box Cars—Common	1,065	726	1,790	1,593	
Stock Cars	45	45	45	45	
Coal Cars	928	1,175	2,103	1,330	
Charcoal Cars	7	7	7	7	
Coke Cars	18	18	18	18	
Flat Cars	1,074	...	1,074	1,084	
Totals.	5,390	1,900	7,280	6,336	
Service Equipment:					
Officers' Cars	3	3	3	3	
Inspection Cars	4	4	4	4	

[Continued from Page 166.]

Mills Mfg. Co. (S. C.) Pfd.	100
Monarch Cotton Mills (S. C.)	79
Monaghan Mills (S. C.)	98
Newberry Cotton Mills (S. C.)	120
Norris Cotton Mills (S. C.)	105
Odell Mfg. Co. (N. C.)	100
Orangeford Mfg. Co. (S. C.) Pfd.	100
Orr Cotton Mills (S. C.)	994
Pacolet Mfg. Co. (S. C.)	88
Pacolet Mfg. Co. (S. C.) Pfd.	100
Pelzer Mfg. Co. (S. C.)	180
Piedmont Mfg. Co. (S. C.)	179
Poe, F. W., Mfg. Co. (S. C.)	129
Raleigh Cotton Mills (N. C.)	105
Roanoke Mills (N. C.)	102
Saxon Mills (S. C.)	100
Sibley Mfg. Co. (Ga.)	60
Southern Cotton Mills (N. C.)	90
Spartan Mills (S. C.)	132
Tucapau Mills (S. C.)	145
Union Cotton Mills (S. C.)	145
Union Cotton Mills (S. C.) Pfd.	99
Victor Mfg. Co. (S. C.)	115
Warren Mfg. Co. (S. C.)	100
Warren Mfg. Co. (S. C.) Pfd.	106
Washington Mills (Va.)	126
Washington Mills (Va.) Pfd.	100
Whitney Mfg. Co. (S. C.)	110
Wilm'gton Cot. Mills (N. C.) Pfd.	100
Woodruff Cotton Mills (S. C.)	97
	100

Tennessee Banks.

A compilation of the reports of the State banking institutions in Tennessee at the close of business on June 30 has been completed by the State comptroller's office. It shows total resources of \$47,745,084; total capital, \$7,977,810; individual deposits subject to check, \$28,268,909; loans and discounts, \$27,601,037. These figures show gratifying gains as compared with other years.

New Corporations.

The Citizens' Bank has begun business at Ennis, Texas.

A bank is reported organized at New Hebron, Miss., by Mr. Riley, W. C. Ellis and others; capital \$20,000.

The First National Bank of Merit, Texas, has been authorized to begin business; capital \$25,000; president, K. M. Moore.

The Broxton Banking Co. has been organized at Broxton, Ga., by L. O. Benton of Monticello, president, and others; capital \$25,000.

A movement is under way to establish a bank at East New Market, Md. The American Banking Co., recently incorporated, has, it is reported, been asked to assist in the work.

The Bank of Benoit at Benoit, Bolivar county, Mississippi, has been approved; capital \$25,000. The incorporators are C. D. Terrell, W. A. Speakes and others.

The East Texas Abstract Co. of Houston, Texas, capital \$10,000, has been chartered. The incorporators are Jacob C. Baldwin, Robert B. Baldwin, L. C. Christian.

The Citizens' National Bank of Thomasville, Ala., has been organized; capital \$25,000; J. H. Wood, president; J. A. McNider, vice-president; J. W. Tucker, cashier.

The Pittsburg National Bank, Pittsburg, Texas, has been organized; capital \$25,000; L. R. Hall, president; R. A. Morris, vice-president; S. R. Greer, cashier.

The Maury County Life Underwriters' Association has organized at Columbia, Tenn., with officers as follows: Thos. L. Porter, Jr., president; Frank H. Smith, secretary.

The Bank of Myrtle has been incorporated at Myrtle, Union county, Mississippi; capital \$25,000. The incorporators are W. C. Graham, J. E. Coltharp and others.

The Edmonton Deposit Bank of Edmonton, Ky., capital \$15,000, has been incorporated by J. H. Kinnard, J. A. Hamilton, Sr., L. P. Williams, Basil Richardson, and J. W. Kinnard.

The Tipton County Bank has been incorporated in Tennessee; capital \$50,000. The incorporators are W. A. Black, John A. Tipton, R. M. Jackett, W. V. McFadden and John L. Garner.

The C. S. Stift Realty Co. has been incorporated at Little Rock, Ark., with capi-

tal of \$1000, by C. S. Stift, president and treasurer; Nathan Stift, vice-president; Nelson Frank, secretary.

The new bank at Adamsville, Tenn., is to begin business September 15; capital \$25,000. The officers are Harper Dickey, president; Father Placidus, vice-president; Jacob Post, vice-president; W. S. Rodman, temporary secretary; A. Boergler, treasurer; J. Jacobs and J. J. Sax, directors.

The Lenora Deposit Bank of Lenora, Rowan county, Kentucky, has been chartered with \$15,000 capital. The incorporators are Abel Caudill, D. B. Caudill and L. P. Williams of Morehead.

The Citizens' National Bank of Hot Springs, Ark., capital \$100,000, has been approved. The organizers are J. A. Townsend, Gus Strauss, Hamp Williams, D. Beiter, S. M. Duffie and Joe P. Eagle.

The Mountain City Banking Co. of Chattanooga, Tenn., capital \$25,000, has applied for a charter. The incorporators are J. J. Green, J. M. Eustis, D. R. Hamil, George M. DuBose and J. Hodge McLean.

The Crowder State Bank at Crowder City, I. T., capital \$15,000, has organized by electing the following officers: W. D. Sadler, president; W. E. Crowder, vice-president; J. B. Henderson, secretary and treasurer.

The Tennessee Auditing Co. has registered its charter at Nashville; capital \$5000. The incorporators are Charles Fisher, W. L. McFarland, A. S. Williams, Watkins Crockett, Randall Curell and Samuel H. Orr.

The First National Bank of Franklin County at Decherd, Tenn., capital \$25,000, has been approved. Those interested are W. H. Featherston, Decherd, Tenn.; Frank Campbell, C. C. Campbell, W. J. Knight and L. B. Davidson.

The American Investment & Realty Co. of Jacksonville, Fla., capital \$10,000, publishes its charter. Those interested are Americus V. Smith, Milton Edwards and E. M. Smith, who are, respectively, president, secretary and treasurer.

The Bank of New Edinburg, Cleveland county, Arkansas, has been chartered, with \$25,000 capital. Those interested are W. D. Atwood, president; T. M. Boyd, J. J. T. Kendrick, C. F. Smith, G. C. Atwood, W. M. Mosely and J. O. Vance.

The Southwestern Accident Insurance Co. of West Virginia has been chartered at Oceana, W. Va., with \$10,000 capital. The incorporators are A. R. Wittenberg, A. C. Nelson, J. F. W. Allen, B. R. Myers and M. P. Howard of Oceana.

The Dallas Bank has organized at Gastonia, N. C., by electing L. L. Jenkins, president; E. L. Wilson, vice-president and M. A. Carpenter, cashier. The directors are L. L. Jenkins, J. R. Lewis, J. D. Moore, W. A. Deaton and E. L. Wilson.

The Wynne Building and Loan Association has been organized at Wynne, Ark., with the following officers: J. E. Harris, president; F. D. Rolfe, vice-president; G. W. Eldridge, secretary; W. H. Newsom, treasurer, and J. T. Patterson, attorney.

Charles H. Ellis of Calhoun, Ky., is reported to be organizing a bank at Morganfield, Ky.; capital \$25,000. John M. Crowe will, it is stated, be the president, and Mr. Ellis the cashier. It will be a national bank, and is to begin business November 1.

The North American Live-Stock Insurance Co. has been incorporated at Berkeley Springs, W. Va., with \$100,000 capital. The incorporators are Thomas W. Allen, G. W. Biser, H. W. Disher, J. Frank Oyerly, Berkeley Springs, W. Va.; Lewis G. Surrit, Alexandria, Va.

The Dixie Mutual Fire Insurance Co. has been incorporated at Helena, Ark., by the following: J. S. Drew, president; J. W. Dawson, vice-president; Henry W. Holloway, secretary and treasurer; Henry Avant, J. H. Carr, J. F. Ellison, R. P.

Graves, Dr. E. C. Morris, W. A. Stevens, A. D. Herron and E. C. Canady.

A new bank has been organized at Altus, Ark., with \$25,000 capital and the following officers: H. E. Hembree, president; Father Placidus, vice-president; Jacob Post, vice-president; W. S. Rodman, temporary secretary; A. Boergler, treasurer; J. Jacobs and J. J. Sax, directors.

The Runnels County National Bank of Miles, Texas, has been approved; capital \$25,000. The directors are W. A. Davis, G. Meineke, C. A. Whitaker, Joseph Theile, W. T. Davis and R. B. Rogers. It is stated that Meineke Banking Co. will be taken over by the new institution.

The Watauga County Bank has been chartered at Boone, N. C. The authorized capital is \$50,000, but the bank will begin business with \$10,000 capital. The stockholders include 34 citizens of Boone, Mast, Valle Crucis, Stony Fork, Pine Run, Bamboo, Hickory, Vilas, Horton, Norris, Sugar Grove and North Wilkesboro.

New Securities.

Annapolis, Md.—The Anne Arundel county commissioners have sold to Hambleton & Co. of Baltimore \$20,000 of 4 per cent. bonds at 102.70.

Bedford City, Va.—The board of supervisors of Bedford county has decided to petition the court to order an election to vote on \$7000 of bonds for road improvements.

Carrollton, Miss.—Bids will be received until September 6 for \$10,000 of 5 per cent. bonds. Address the Mayor.

Centerville, Md.—The Queen Anne county commissioners have sold to Eugene Pennington at 107.25 and interest \$20,000 of 5 per cent. bridge bonds.

Front Royal, Va.—Bids will be received at any time by E. H. Jackson, a member of the town council, for \$15,000 of 4½ per cent. electric-light bonds.

Hannibal, Mo.—The sale of \$15,000 of 4 per cent. North School bonds to the Hannibal Trust Co. at 100.10 is reported.

Hoschton, Ga.—The city proposes to issue \$10,000 of public school bonds.

Jasper, Ala.—Mr. L. W. Loller writes the Manufacturers' Record that the Jasper Water, Light & Power Co. will probably issue \$30,000 of 6 per cent. 20 or 25-year bonds.

Lawton, O. T.—The city council has authorized the city treasurer to turn over to the purchaser, M. L. Turner of Oklahoma City, the \$25,000 of City Hall bonds at his bid of \$25,250, accrued interest and the cost of printing the bonds.

Live Oak, Fla.—The town has voted to issue \$36,000 of bonds to buy waterworks.

Lynchburg, Va.—P. A. Krise of Lynchburg has purchased \$50,000 of 4 per cent. city refunding bonds at 104, and J. R. Gilliam, chairman of the finance committee of the city council, is reported in negotiation with out-of-town parties for the sale of the balance of \$150,000.

Maysville, Ky.—An election has been ordered by the Mason fiscal court to vote on \$25,000 of bonds for a new infirmary.

Meridian, Miss.—The Meridian Terminal Co. will issue bonds, it is stated, for its proposed union depot; president, C. C. Harvey, New Orleans, La.

Minden, La.—The town proposes to issue \$36,000 of 5 per cent. water bonds.

Newport, Ky.—A vote will be taken at the November election on an issue of \$90,000 of municipal electric-light-plant bonds.

Pine Bluff, Ark.—John M. McCain, chairman of the board of improvement, sewer district No. 8, will receive bids until 10 A. M. September 10 for \$30,000 of 5 per cent. bonds.

Port Arthur, Texas.—Spitzer & Co. of Toledo, Ohio, have purchased \$80,000 of

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5 per cent. coupon school bonds at 101.275 and interest after 60 days.	
Portsmouth, Va.—The Portsmouth, Berkley & Suffolk Water Co. will, it is reported, issue \$100,000 of 6 per cent. second mortgage bonds.	
Silver Creek, Miss.—S. A. Kean of Chicago has bought at par \$2500 of 6 per cent. school bonds.	
Sulphur Springs, Texas.—The comptroller has registered \$1000 of 4½ per cent. Sulphur Springs water bonds.	
Tunica, Miss.—It is proposed to vote on an issue of \$5000 light bonds.	

[For Additional Financial News, See Page 38.]

